

**2003 – 2004  
UTM Calendar**

**UNIVERSITY OF TORONTO  
AT MISSISSAUGA**



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# University of Toronto at Mississauga

## 2003-2004



### *Message from Ian Orchard, Vice-President & Principal*

To new and prospective students, welcome to the University of Toronto at Mississauga. To returning students, welcome back.

The 2003-2004 year marks the 36<sup>th</sup> anniversary of full-time classes at this campus. From an initial enrolment of 150 students to a current enrolment of 7,200 students, and with an anticipated enrolment of 11,000 within the next five years, UTM is entering the most exciting period in its history.

A Master Plan has been developed to address the issues of growth, and to connect the culture of this campus with the natural environment. A new student residence, opening September 2003, has recently won an Architectural Award of Excellence. Capital expansion includes plans for additional residence space, a CCIT (Culture, Communication and Information Technology) building, a Centre for Biosciences and Biotechnology facility, a new Science building, new Library facilities, an Athletics/Wellness Centre and a new entrance to the campus. UTM is also hiring more top-notch faculty and staff to meet both enrolment demands and to expand key research areas.

UTM offers 125 programs among 70 areas of study, including unique interdisciplinary combinations. UTM's two professional masters programs combine a strong academic base with work placements in some of the country's leading financial institutions and pharmaceutical companies. Plans are underway for program expansion at both the undergraduate and graduate level.

As a student of UTM, you will be part of a community in which you will have every opportunity to learn, explore new ideas, perform research, socialize - to flourish - and to achieve your dreams.

### *Interesting Facts about UTM*

- first classes were held in September 1966 in temporary quarters at T.L. Kennedy Secondary School
- the campus is situated on 224 acres
- there are three academic buildings, a fully equipped theatre, the Blackwood Art Gallery, and historic "Lislehurst" (home to UTM's principals)
- student residence capacity of 1,023
- degrees offered at UTM include:
  - Honours Bachelor of Arts
  - Honours Bachelor of Science
  - Bachelor of Commerce
- home to two masters degree programs:
  - Biotechnology
  - Management and Professional Accounting (MMPA),as well as to graduate students based at UTM working on Master of Arts, Master of Science, Master of Philosophy, and Doctor of Philosophy degrees.
- UTM motto: *Tantum Nobis Creditum*, "So much has been entrusted to us"
- UTM was granted its 'coat of arms' in 1975. The colours green and gold are dominantly featured and represent the natural beauty of the campus. The oak tree is from the U of T coat of arms and the 'wavy' blue and silver bars in the chevron signify the proximity of the campus to the Credit River
- the campus is thirty-three kilometres west of the downtown U of T campus
- there are 25,000 UTM alumni
- for information:  
(905) 828-5399  
[erinreg@utm.utoronto.ca](mailto:erinreg@utm.utoronto.ca)  
[www.utm.utoronto.ca](http://www.utm.utoronto.ca)

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# 1. SESSIONAL DATES 2003 - 2004

## 2003

April 14	2003 Summer Session registration begins.	July 11	**Last date to petition for deferred exams from 2003 Summer F courses.
May 9	Last date to petition for extensions of time for term work for 2002 Fall / 2003 Winter S and Y courses.	July 20	*Last date to cancel (drop) 2003 Summer Y courses from academic record and GPA.
May 11	<b>Last date for registration for 2003 Summer courses.</b> After this date, a late registration fee will be imposed.	July 27	*Last date to cancel (drop) 2003 Summer S courses from academic record and GPA. Civic Holiday - University closed.
May 12	2003 Summer classes begin in F and Y courses.	August 4	Classes end in 2003 Summer S and Y courses; all term work is due by this date.
May 18	Last date to add or change sections in F and Y courses for 2003 Summer	August 9	Final examinations in 2003 Summer S and Y courses.
May 19	Victoria Day - University closed.	August 15	Last date to petition for extensions of time for 2003 Summer S and Y courses.
May 23	<b>**Last date to petition for deferred exams from 2002 Fall / 2003 Winter, S and Y courses.</b>	August 17	First Registration Period for 2003 Fall + 2004 Winter Sessions ends.
May 31	Mailing of Statements of Results (2002 Fall / 2003 Winter) begins.	August 22	Second Registration Period begins for 2003 Fall + 2004 Winter Sessions.
June 1	Last date to request transfer to St. George Campus for full-time studies.	August 25-29 August 29	Deferred examinations period. **Last date to petition for deferred exams from 2003 Summer S and Y courses.
June 8	<b>*Last date to cancel (drop) 2003 Summer F courses from academic record and GPA.</b>	September 1	Labour Day - University closed.
June 16	Faculty of Arts & Science, UTM Convocation.	September 6	Mailing of Statements of Results (2003 Summer) begins.
June 21	Classes end in 2003 Summer F courses; all term work is due by this date.	September 7	Last date for registration for the 2003 Fall + 2004 Winter Sessions. After this date, a late registration fee may be imposed.
June 23-28	<b>Final examinations in 2003 Summer F courses.</b>		2003 Fall Session classes begin in F and Y courses.
June 27	Last day to petition for extensions of time for term work for 2003 Summer F courses.	September 8	Last date for students to confirm intention to graduate in November and to change their program enrolments.
June 30	Deadline to register for S courses; after this date a late registration fee is imposed.	September 14	Last date to add Fall Session F and Y courses.
July 1	Canada Day observance - University closed.	September 21	Last date to enrol in subject POS(s) for 2003-2004 Session.
July 2	<b>Classes begin in 2003 Summer S courses.</b>	October 6	<b>First date to confirm intention to graduate in June 2003.</b>
July 2	First date for students to confirm intention to graduate in November 2003.		Thanksgiving Day - University closed.
July 8	<b>Last date to add S courses for 2003 Summer.</b>	October 13	*Last date to cancel (drop) Fall Session F courses from academic record and GPA.
July 8	<b>First Registration Period for 2003 Fall + 2004 Winter Sessions begins.</b>	November 3	

# SESSIONAL DATES 2003 - 2004

November 14	Deadline to request corrections to 2002 Fall / 2003 Winter academic record. After this date no further requests for corrections to these academic periods will be considered.	May 17	<b>2004 Summer Session classes begin in F and Y courses.</b>
November 19	Faculty of Arts & Science, UTM Convocation.	May 24	Victoria Day - University closed.
December 6	<b>Fall Session ends; all term work in F courses is due by this date.</b>	May 30	Mailing of Statements of Results (2003 Fall / 2004 Winter) begins.
December 8-19	<b>Fall Session final examinations in F courses. Term tests may be held in multi-section Y courses.</b>	mid-June	<b>UTM Convocation 2004 (TBA)</b>
December 19	Last date to petition for extensions of time for F courses.	June 25	Classes end in 2004 Summer F courses; all term work is due by this date.
Dec . 20-Jan. 4	Christmas Holidays - University closed.	June 28-July 2	<b>Final examinations in 2004 Summer F courses.</b>
<b>2004</b>		July 1	Canada Day observance - University closed.
January 5	<b>2004 Winter Session begins.</b>	July 5	<b>2004 Summer classes begin in S courses.</b>
January 9	**Last date to petition for deferred exams from F courses.	August 2	Civic Holiday - University closed.
January 18	Last date to add 2003 Winter S courses.	August 13	Classes end in 2004 Summer S and Y courses; all term work is due by this date.
January 18	Last date to confirm intention to graduate in June 2003.	August 16-20	Final examinations in 2004 Summer S and Y courses.
February 15	*Last date to cancel (drop) 2003-2004 Y courses from academic record and GPA.		
Feb. 16-20	Reading Week; deferred examinations from December 2003.		
February 28	Deadline to request corrections to 2003 Summer academic record. After this date, no further requests for corrections to this academic period will be considered.		
March 7	*Last date to cancel (drop) 2004 Winter S courses from academic record and GPA.		
April 1	Deadline for students to make application for admission to Arts and Science (St. George campus)		
April 8	<b>2004 Winter Session ends all term work in S and Y courses is due by this date.</b>		
April 9	Good Friday - University closed.		
April 12-16	Study period; no tests or exams may be held.		
April 19-May 7	Final examinations in 2004 Winter S courses and 2003-2004 Y courses.		

**NOTE:** \*After this deadline a mark is recorded for each course, whether course work is completed or not (a "0" is assigned for incomplete work), and calculated into the GPA.

Course suffixes in this section refer to those that appear in the *UTM Registration Guide* booklet and in the Course Timetable on the UTM web site.

**\*\*Definition of:**

**Deferred Examination:**

The writing of an examination at a later date than the scheduled examination date.

# **IMPORTANT INFORMATION**

This Calendar provides information for the University of Toronto at Mississauga only. Separate calendars are published by the University of Toronto for the St. George campus and University of Toronto at Scarborough.

## **1. Changes in Subject POSs (programs of study) and/or Courses**

The programs of study that our Calendar lists and describes are available for the year(s) to which the Calendar applies. They may not necessarily be available in later years. If the University or Faculty must change the content of programs of study or withdraw them, all reasonable possible advance notice and alternative instruction will be given. The University, however, will not be liable for any loss, damages, or other expense that such changes might cause.

For each program of study offered by the University through the Faculty, the courses necessary to complete the minimum requirements of the program will be made available annually. We must, however, reserve the right otherwise to change the content of courses, instructors and instructional assignments, enrolment limitations, prerequisites and corequisites, grading policies, requirements for promotion and timetables without prior notice.

## **2. Change in Regulations and Policies**

The University has several policies that are approved by the Governing Council and which apply to all students. Each student must become familiar with the policies. The University will assume that he or she has done so. The rules and regulations of the Faculty are displayed in this Calendar. Applicable University policies are either fully displayed or listed in the Calendar. In applying to the Faculty, the student assumes certain responsibilities to the University and the Faculty, and, if admitted and registered, shall be subject to all rules, regulations and policies cited in the Calendar, as amended from time to time.

## **3. Changes in Fees**

The University reserves the right to alter the fees and other charges described in the Calendar.

## **4. Enrolment Limitations**

The University makes every reasonable effort to plan and control enrolment to ensure that all of our students are qualified to complete the programs to which they are admitted, and to strike a practicable balance between enrolment and available instructional resources. Sometimes such a balance cannot be struck and the number of qualified students exceeds the instructional resources that we can reasonably make

available, while at the same time maintaining the quality of instruction. In such cases, we must reserve the right to limit enrolment in the programs, courses, or sections listed in the Calendar, and to withdraw courses or sections for which enrolment or resources are insufficient. The University will not be liable for any loss, damages, or other expenses that such limitations or withdrawals might cause.

**Note:** University policy stipulates that the number of students in a course may not exceed the number permitted by fire regulations. The Faculty also limits the number of students in any course, or any section of a course, if the number wishing to take the course should exceed resources available. However, every effort is made to accommodate students in 100 level courses.

## **5. Copyright in Instructional Settings**

If a student wishes to tape-record, video-record or otherwise reproduce lecture presentations, course notes, or other similar materials provided by instructors, he or she must obtain the instructor's written consent beforehand. Otherwise, all such reproduction is an infringement of copyright and is absolutely prohibited. In the case of private use by students with disabilities, the instructor's consent will not be unreasonably withheld.

## **6. Person I.D. (Student Number)**

Each student at the University is assigned a unique identification number. The number is confidential. The University, through the Policy on Access to Student Academic Records, strictly controls access to Person I.D. numbers. The University assumes and expects that students will protect the confidentiality of their Person I.D.'s.

## **7. Registration**

Receipt of registration material, or any campus publication, submission of a registration form, or payment of fees, does not necessarily constitute eligibility to register in the coming session. Students who are suspended as a result of the May or August examinations will be so informed on the Statement of Results and will not be permitted to register. Any fees paid toward the session will be refunded in full.

## **8. No Smoking Policy**

Smoking is not allowed in any building at UTM.

The University of Toronto web site ([www.utoronto.ca](http://www.utoronto.ca)) and the Undergraduate Admissions Viewbook contain complete information on entrance requirements. To obtain the viewbook, contact:

Admissions and Awards  
315 Bloor Street West  
Toronto, ON M5S 1A3  
(416) 978-2190  
[www.adm.utoronto.ca](http://www.adm.utoronto.ca)

The entrance requirements to University of Toronto at Mississauga are those of the University of Toronto, including the regulations for admission as a non-matriculant.

You may be admitted to the University of Toronto in one of the following ways, depending upon whether you have a sufficiently high standing in your previous academic work:

1. Upon successful completion of the full Ontario Secondary School Diploma (OSSD), or equivalent, and six 4U/M courses or six Ontario Academic courses, or equivalent, as outlined below.
2. With previous degree studies at a recognized university.
3. As a non-matriculant student with less than the full admission requirements.

Please note that possession of the minimum qualifications does not ensure admission.

### Candidates Applying from an Ontario Secondary School – 2003-2004

- Applicants must be eligible to receive the Ontario Secondary School Diploma (OSSD).
- Applicants must present at least six 4U/M courses or six Ontario Academic Courses (OACs).
- One credit must be English 4U, or Anglais 4U, or OAC English I (ENGOAO), or OAC Anglais I or II.
- Applicants must present credits to satisfy any prerequisites of specific courses in which they intend to enrol. Please consult page 10 of the University of Toronto at Mississauga Calendar 2003-2004, and individual course descriptions outlined in Section 9.
- Applicants intending to enrol in science

or business courses should include all required courses for their program in their senior matriculation. Please consult Page 10.

- Applicants whose first language is not English, and who have studied full time in an English language school system for less than four years, must present proof of English facility.

In addition to marks in the senior matriculation subjects, a student's overall academic record may be taken into consideration. Applications may be considered from candidates whose qualifications do not meet the normal requirements, but such candidates will have to offer written evidence of exceptional ability or of extenuating circumstances.

### Applicants from Outside Ontario Secondary Schools

We encourage application from all qualified students. Applicants must present a satisfactory academic record equivalent to the Ontario Secondary School Diploma, from recognized academic institutions and meet the requirements listed in the Undergraduate Admission Viewbook or in the Undergraduate Admissions Bulletin or consult [www.adm.utoronto.ca](http://www.adm.utoronto.ca).

### Admission with Transfer Credit

Candidates who have acceptable standing at other universities, or at other Faculties or Schools of this University, including the University of Toronto at Scarborough, and the Faculty of Arts and Science (St. George Campus), may be considered for admission with transfer credit provided that the content of the studies previously taken is considered appropriate for inclusion in a degree program offered by UTM.

Prospective students are encouraged to consult Registrarial Services at UTM prior to contacting Admissions and Awards for an application.

Students wishing to apply to Faculty of Arts and Science (St. George Campus), University of Toronto at Scarborough or other Faculties or Schools of U of T should contact U of T Admissions and Awards.

UTM grants a maximum of 5.0 transfer

credits to students who have completed the requirements for a degree or diploma. Otherwise, a maximum of 10.0 transfer credits may be granted.

There is a mandatory transfer credit assessment fee which must be paid prior to a student receiving transfer credit assessment.

Students have one year from the date of their transfer credit assessment, or from the date of their first registration at UTM, whichever is later, to request a reassessment or adjustment. The same time limit applies to all departmental interviews.

**Note:** Regardless of the number of transfer credits granted, five of the six 300/400 level courses required for an Honours B.A./B.Sc. or B.COM. degree, must be completed with suitable standing at UTM. For those students eligible to pursue the B.A./B.Sc. degree, two of the three 300/400 level courses required must be completed at UTM.

### **Admission Restricted to "Part-time"**

Students restricted to a reduced course load on admission may not take more than 2.5 credits in the Fall/Winter Sessions and a maximum of 2.0 credits in the Summer Session. If these students wish to transfer to full-time studies, they may apply through Registrarial Services after the session in which they pass at least 4.0 credits at UTM with a cumulative Grade Point Average of 2.30. (Transfer credits are not counted.)

### **Admission "On Probation"**

Students who have previously studied in other Faculties or institutions and who do not meet UTM's requirements for admission may, on appeal, be admitted, subject to the following conditions:

1. They will be "On Probation" until the end of the session in which they attempt their fourth UTM course.
2. At the end of the session in which the fourth course is attempted they will be assessed as follows:
  - a) Students with a Cumulative Grade Point Average (CGPA) of 1.50 or more will be in good standing;
  - b) Students with a CGPA of less than 1.50, but an Annual (AGPA) [Fall+Winter] or a sessional GPA

(SGPA) [Summer] of 1.70 or more, will continue "On Probation;"

- c) Students with a CGPA of less than 1.50 and an AGPA or a SGPA of less than 1.70 will be suspended for one calendar year. Upon return they will remain "On Probation," and will be under the regulations for academic status outlined in Section 6 of the University of Toronto at Mississauga Calendar.
3. While on probation, students are ineligible to enrol for transfer credit in courses outside of the University.
4. Students may be at risk of academic suspension and are strongly urged to consult an academic advisor in Registrarial Services before registering.

### **Admission as Non-degree Students**

Non-degree students are registered in degree courses, but are not progressing towards a degree. Most non-degree students have completed degree studies and are taking further courses for their own purposes, including admission to graduate studies. Students admitted as degree students cannot become non-degree students until they have completed an honours degree unless they are returning to UTM as Non-degree Visiting students on a Letter of Permission from another institution. Further information and applications are available from:

Registrarial Services  
University of Toronto at Mississauga  
3359 Mississauga Road N.  
Room 2122, South Bldg.  
Mississauga, ON L5L 1C6  
(905) 828-5399  
[www.utm.utoronto.ca](http://www.utm.utoronto.ca)

[The University of Toronto at Mississauga may not always have sufficient capacity to admit Non-degree students.]

### **Admission of External Students to a Second Degree Program**

Applicants who hold a bachelor's degree, or equivalent, from another university, and who wish to complete a second undergraduate degree, may apply for admission into a degree program. Before applying, external

candidates are urged to determine whether a second degree is actually required for their purposes; for example, a 'make-up' year as a Non-degree student may satisfy admission requirements for a graduate program. To apply, contact:

Admissions and Awards  
315 Bloor Street W.  
Toronto, ON M5S 1A3  
(416) 978-2190

**Note:**

Students who have a degree with a Major/Specialist in either Commerce or Economics cannot do a B.Com. as a second degree. This is due to the extensive overlap of courses between the two degrees. In addition, students may not complete a second undergraduate degree in the same field as their first degree.

### **Admission as Non-degree Visiting Students**

Students with valid Letters of Permission from other accredited North American universities may register at the University of Toronto at Mississauga as Non-degree Visiting students, taking courses for transfer credit at their home university. Non-degree Visiting student status does NOT imply automatic future acceptance as either a degree student, or a non-degree student. Further information and applications are available at our web site  
[www.utm.utoronto.ca](http://www.utm.utoronto.ca)

### **Admission as Non-Matriculants**

Candidates at least 21 years of age who are Canadian citizens or permanent residents of Canada and do not hold the published admission requirements, and who have been resident in Ontario for at least one year, may apply for admission as non-matriculants. They must present proof of age, and must complete, with high standing, at least one of the Academic Bridging Courses offered by Woodsworth College. All candidates should consult the Counselling Staff at Admissions and Awards, (416) 978-2190, before enrolling.

### **Admission of Senior Citizens**

Canadian citizens or permanent residents of Canada who are at least sixty-five years of age by October 1, for admission in September, and by May 15, for admission in May, may apply for admission to the Faculty as part-time non-degree students. They do not have to meet the academic requirements for admission. After successfully completing 4.0 credits, these students may apply to become degree students. For further information call (905) 828-5399 or also visit our web site at [www.utm.utoronto.ca](http://www.utm.utoronto.ca)

### **Application Forms**

Application forms and further information are available from:

Admissions and Awards University of Toronto 315 Bloor Street West Toronto, ON M5S 1A3 (416) 978-2190 <a href="http://www.adm.utoronto.ca">www.adm.utoronto.ca</a>	Registrarial Services University of Toronto at Mississauga 3359 Mississauga Road Rm. 2122, South Bldg. Mississauga, ON L5L 1C6 <a href="http://www.utm.utoronto.ca/admissions">www.utm.utoronto.ca/admissions</a>
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Application forms, for person applying to become Degree students, are available at  
[www.ouac.on.ca](http://www.ouac.on.ca).

### **Deadline Dates**

Application should be made as early as possible in the year for which admission is sought. The final dates are:

**For Summer Session 2003**  
March 15, 2003

**For Fall Session 2003/Winter Session 2004**  
Full-time studies: April 1, 2003  
Part-time studies: June 1, 2003

**Note:**

Overseas applicants must apply by March 1, 2003.

Completed application forms and amendments to program choices must be received by the Ontario Universities' Application Centre on or before the dates listed above.

## **Secondary School Prerequisites**

The courses listed below have Grade 12(4U) or OAC or equivalent prerequisites:

AST110H	Recommended: (SPH4U + MCB4U + MGA4U) or (OAC Physics + OAC Calculus + OAC A&G)
BIO152H	SBI4U or OAC Biology; Beginning 2004, prerequisites will be (SBI4U or OAC Bio) + (SCH4U or OAC CHM) + (MCB4U or OAC Calc) + (MGA4U or MDM4U or OAC A&G or OAC FM)
CHM140Y	(SCH4U or OAC Chemistry) + (MCB4U or OAC Calc) + (MGA4U or OAC A&G)
CSC108H	Any "new" Gr. 12(4U) Mathematics or "old" Grade 12 Mathematics
CSC148H	Two Gr. 12(4U) Mathematics or Two OAC Mathematics
FRE180Y	FSF4U or OAC French
FSL261Y	FIF4U or OAC French (immersion)
FSL280Y	FIF4U or OAC French (immersion)
FSL305H	FSF4U or OAC French
FSL306H	FSF4U or OAC French
GGR376H	SCH4U or OAC Chemistry
GER200Y	LWG4U or OAC German
GER205H	LWG4U or LWA4U or OAC German
ITA200Y	LWI4U or LWJ4U or OAC Italian
ITA220Y	LWI4U or LWJ4U or OAC Italian
ITA221Y	LWI4U or LWJ4U or OAC Italian
ITA229Y	LWI4U or LWJ4U or OAC Italian
ITA230Y	LWI4U or LWJ4U or OAC Italian
ITA235Y	LWI4U or LWJ4U or OAC Italian
ITA243Y	LWI4U or LWJ4U or OAC Italian
MAT102H	(MCB4U + MGA4U) or OAC A&G
MAT132Y	(MCB4U + MGA4U/MDM4U) or (OAC Calc + OAC A&G)
MAT133Y	(MCB4U + MDM4U) or (OAC Calc + OAC A&G/OAC FM)
MAT138Y	(MCB4U + MGA4U) or (OAC Calc + OAC A&G)
MAT222H	MGA4U or OAC A&G
PHY135Y	(SPH4U + MCB4U + MGA4U) or (OAC Physics + OAC Calc + OAC A&G/OAC FM)
Psychology Program	Any Gr. 12(4U) Mathematics or Any OAC Mathematics
PSY201H	Any Gr. 12(4U) Mathematics or Any OAC Mathematics

### **For Sciences:**

Applicants are reminded that they should include in their Grade 12 subject selection the following courses: MCB4U and MGA4U for first year science courses and the Grade 12(4U) course(s) in the relevant subject(s).

### **For Commerce or Economics:**

Applicants intending to study Commerce or Economics are advised to include MCB4U and MDM4U or MGA4U in their Grade 12 (4U/M) subject selection.

## **UTM Admission Course Requirements for the new Ontario Secondary School Curriculum**

These are minimum requirements only and are subject to change. For up-to-date UTM information, contact the Liaison/Outreach Office at 905-828-5400.

### **Humanities Stream**

#### **Art & Art History Stream**

#### **Social Sciences Stream (including Management)**

#### **Communication, Culture & Information Technology Stream**

<u>OAC requirement</u>	<u>New OSS requirement</u>
------------------------	----------------------------

OAC English 1*	English (ENG4U)*
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Plus 5 additional OACs	Plus 5 additional U or M courses
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#### **Theatre & Drama Studies Stream**

<u>OAC requirement</u>	<u>New OSS requirement</u>
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OAC English 1*	English (ENG4U)*
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Plus 5 additional OACs	Plus 5 additional U or M courses
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<i>Plus successful audition</i>	<i>Plus successful audition</i>
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#### **Business Stream (excluding Management)**

<u>OAC requirement</u>	<u>New OSS requirement</u>
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OAC English 1*	English (ENG4U)*
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OAC Calculus	Advanced Functions & Intro Calculus (MCB4U)
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OAC Algebra & Geometry	Geometry & Discrete Mathematics (MGA4U)
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OR OAC Finite Math	OR Mathematics of Data Management (MDM4U)
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Plus 3 additional OACs	Plus 3 additional U or M courses
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#### **Life Sciences Stream (excluding Psychology)**

#### **Mathematical and Physical Sciences Stream**

#### **Computer Science Stream**

<u>OAC requirement</u>	<u>New OSS requirement</u>
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OAC English 1*	English (ENG4U)*
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OAC Calculus	Advanced Functions & Intro Calculus (MCB4U)
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OAC Algebra & Geometry	Geometry & Discrete Mathematics (MGA4U)
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Plus 3 additional OACs	Plus 3 additional U or M courses
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*Note that, in addition to the general admission requirements for these streams, there are various high school prerequisites of Biology, Chemistry and/or Physics for first-year courses, depending upon the specific program(s) the student wishes to pursue; the conversions of these would be as follows:*

<i>OAC Biology</i>	<i>Biology (SBI4U)</i>
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<i>OAC Chemistry</i>	<i>Chemistry (SCM4U)</i>
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<i>OAC Physics</i>	<i>Physics (SPH4U)</i>
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#### **Psychology Stream**

<u>OAC requirement</u>	<u>New OSS requirement</u>
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OAC English 1*	English (ENG4U)*
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OAC Calculus	Advanced Functions & Intro Calculus (MCB4U)
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OR OAC Algebra & Geometry	OR Geometry & Discrete Mathematics (MGA4U)
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OR OAC Finite Math	OR Mathematics of Data Management (MDM4U)
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Plus 4 additional OACs	Plus 4 additional U or M courses
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\* Students who are required to present an acceptable English Facility test result are exempt from the OAC English 1/English (ENG4U) requirement and may substitute another OAC/Grade 12 U/M course.

### **3. STUDENT ACCOUNTS AND SCHOLARSHIPS**

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Tuition fees are established by the Governing Council and set out in detail on the *Student Accounts web site* ([www.fees.utoronto.ca](http://www.fees.utoronto.ca)). Tuition fees normally consist of two parts: academic fees and incidental and ancillary fees (including access fee, library, enhancement fund, Hart House, Health Service, athletics, student services, and student organizations). Fees are subject to change at any time by approval of the Governing Council.

**NOTE: Tuition fees are higher for the following programs than for other programs at UTM:**

- COMPUTER SCIENCE SPECIALISTS and MAJOR
- COMMERCE SPECIALIST and MAJOR
- MANAGEMENT MAJOR
- COMMUNICATION, CULTURE AND INFORMATION TECHNOLOGY SPECIALISTS and MAJOR

This information is intended only as a general guide. For detailed information please consult the Student Accounts web site, [www.fees.utoronto.ca](http://www.fees.utoronto.ca) and the Student Account Information sheet which accompanies your fees invoice. Enquiries regarding fee matters may be directed to:

Student Accounts  
215 Huron Street  
Toronto, ON M5S 1A2  
(416) 978-2142.

#### **Payment of Fees**

All fee payments are to be made at a financial institution. Consult the Student Accounts web site for details.

#### **Payment Deadlines**

Payment of fees is required to complete registration. Details are described in the UTM Registration Information Guide.

Students who have outstanding accounts may not receive official transcripts and may not register again at the University until these accounts are paid in full. Registration of students owing fees may be cancelled at any time.

#### **Sanctions on Account of Outstanding Obligations**

The following are recognized University obligations:

- a) Tuition fees;
- b) Academic and other incidental fees;
- c) Residence fees and charges;
- d) Library fines;
- e) Bookstore accounts;
- f) Loans made by Colleges, the Faculty or the University;
- g) Health Service accounts;
- h) Unreturned or damaged instruments, materials and equipment;
- i) Orders for the restitution, rectification or payment of damages, fines, bonds for good behaviour, and requirement of public service work imposed under the authority of the *Code of Student Conduct*.

The following academic sanctions will be imposed on students with outstanding University obligations that have been reported to the Faculty in a timely and accurate manner:

- a) Official transcripts of record will not be issued.
- b) Registration will be refused or withdrawn to continuing or returning students.

Payments made by continuing or returning students will first be applied to outstanding University debts and then to current fees.

#### **Scholarships and Awards**

##### **Recognition of Exceptional Academic Achievement**

###### *Dean's List*

This designation is given to UTM degree students having a Cumulative Grade Point Average (CGPA) of 3.50 or higher, at the end of the Fall-Winter or Summer Session in which the fifth, tenth, fifteenth and twentieth course, offered by the Faculty and taken for credit, has been passed.

The Dean sends a letter of commendation to each student having achieved this level of performance. Students who satisfy these criteria but do not receive the letter at the end of the appropriate session should contact Registrarial Services. (Dean's List letters are not issued at the end of the Fall Session.)

### *High Distinction*

Students who graduate with a Cumulative GPA\* of 3.50 or above are described as graduates "With High Distinction." This achievement is noted on the diploma and transcript.

### *Distinction*

Students who graduate with a Cumulative GPA\* of 3.20 to 3.49 are described as graduates "With Distinction." This achievement is noted on the diploma and transcript.

#### **\*Note:**

The Cumulative GPA must be based on at least 5.0 credits taken at UTM and used for degree credit.

### **Scholarships**

UTM scholarships are awarded to degree students on the basis of one or more of the following criteria: academic merit, volunteer experience and/or financial need. Awards may be in the form of a monetary gift, plaque or medal. Additional information on scholarships and other awards is available through the Registrarial Services web site at [www.utm.utoronto.ca/reg](http://www.utm.utoronto.ca/reg), and from

Registrarial Services  
Room 2122, South Bldg.  
(905) 828-5234.

### **Government Financial Aid—OSAP**

The Ontario Student Assistance Program (OSAP) is available to Ontario residents who are Canadian citizens, or permanent residents, to assist with educational and living expenses. OSAP loans are interest-free and non-repayable while the student remains enrolled in a 60% course load.

Information concerning eligibility and assessment criteria may be obtained from University of Toronto Admissions and Awards, (416) 978-2190, or from the OSAP web site at <http://osap.gov.on.ca>.

Students may apply for OSAP on-line at the web site listed above. It is recommended that returning students apply for OSAP assistance by May 31 and that new students apply by June 30.

Students from other Canadian provinces should apply through their provincial financial aid authority. University of

Toronto Admissions and Awards can provide addresses. Application forms are available on-line.

### **Bursary for Students with Disabilities**

Non-repayable assistance is available from the federal and provincial governments for OSAP recipients who have special educational expenses as a result of a disability. Information and applications are available from University of Toronto Admissions and Awards or from the UTM AccessAbility Resource Centre, (905) 828-3847.

### **Ontario Work-Study Plan**

This program is funded by the University and the Ministry of Education and Training, and provides on-campus, part-time employment to students with financial need. Eligibility information and applications are available each September from University of Toronto Admissions and Awards, (416) 978-2190, or from UTM Registrarial Services, (905) 828-5399.

### **Grants**

Students who have explored all other avenues of financial assistance (e.g., family support, OSAP) and still have unmet financial need may apply for a University of Toronto Grant. Application forms may be obtained from Registrarial Services, (905) 828-5234, starting in late October each year.

Please see the Scholarships and Financial Aid notice boards at UTM for details of other grants and bursaries.

## **4. STUDENT ORGANIZATIONS**

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### **The Erindale College Student Union (ECSU)**

ECSU serves as the body of elected representatives for all the full-time undergraduate students at UTM, and is a direct link to all sectors of the University such as faculty and administration. We sit administrative committees promoting the welfare and best interests of students.

ECSU holds a number of social events and operates the Blind Duck Pub. Your campus Pub is open daily serving meals and open nightly for events.

While promoting student involvement outside the classroom ECSU also represents students with respect to academia, making sure you are treated fairly inside the classroom. If you have any concerns regarding academic situations we are here to provide information, representation, and assistance for you.

Room 100, Student Centre  
(905) 828-5249

[www.ecsu-online.org](http://www.ecsu-online.org)

Office hours:  
Monday – Friday 9:00 a.m. – 5:00 p.m.

### **Erindale Part-time Undergraduate Students at UTM (EPUS@UTM)**

EPUS@UTM is an independent organization of part-time students at University of Toronto at Mississauga. It is funded by the fees which UTM undergraduate part-time students pay to the University's Association of Part-time Undergraduate Students (APUS). EPUS@UTM has a four-person executive committee and operates on a class representatives system similar to that of APUS. EPUS@UTM strongly encourages all part-time students to be class reps. Class representatives meet several times a year in order to raise and address issues or concerns relevant to part-time students. Visit the office and help enhance services to part-time students at UTM.

Room 131B, North Bldg.  
Phone: (905) 828-5422  
Fax: (905) 569-4384  
[ecepus@mail.erin.utoronto.ca](mailto:ecepus@mail.erin.utoronto.ca)

### **The University of Toronto at Mississauga Athletic Council (UTMAC)**

The UTM Athletic Council is an independent body of Student Athletic Leaders who represents the interests of all students at UTM. This student body works with administrative staff of the Centre for Physical Education and the entire campus to ensure a broad range of physical activity programming on both a competitive and recreational level. Come and meet us in Room 1114A and watch for the many special events:

- Frosh Orientation
- Hockey Night in Canada Pub Nights
- Ski Trips
- Raptor/Leaf Games
- Tournaments
- Annual Athletic Banquet

Phone (905) 828-5498 to obtain more information and meet members of our welcoming Council.

### **The Erindale College Council**

Student positions are available on the College Council and its standing committees. Students are encouraged to become involved with these decision-making bodies of the campus. Contact the Secretary, (905) 828-5233, for further details.

### **Other University of Toronto Organizations**

#### **The Students' Administrative Council (SAC)**

SAC is the central student government for all full-time undergraduates. Members are elected from their local college or faculty. UTM office: Room 131, Student Centre (905) 828-5494  
[utm@sac.utoronto.ca](mailto:utm@sac.utoronto.ca)  
[www.sac.utoronto.ca](http://www.sac.utoronto.ca)  
St. George Campus office: 12 Hart House Circle  
(416) 978-4911.

#### **The Association of Part-Time Undergraduate Students (APUS)**

All part-time undergraduate students at the University of Toronto are members of

APUS. Members have access to a broad range of services, resources and programs at the University. APUS offers a number of scholarships, bursaries and a Health Plan for all part-time students. All this information is available at the EPUS@UTM Office.

The APUS Services Office on the St. George Campus offers previous years' final exams, photocopying and a friendly staff to answer student questions.

For further information, contact:  
Sidney Smith Hall,  
100 St. George Street  
Room 1089  
Phone: (416) 978-3993  
Fax: (416) 971-1393  
[apus@campuslife.utoronto.ca](mailto:apus@campuslife.utoronto.ca)  
[www.APUS.utoronto.ca](http://www.APUS.utoronto.ca)

## 5. STUDENT SERVICES

### Academic Skills Centre

The Academic Skills Centre's mission is to assist all members of the UTM community in fulfilling the University's educational mandate. We offer a wide variety of seminars and interactive workshops, including many sessions designed for specific disciplines and individual courses, as well as one-to-one consultations on all aspects of academic work. Our staff and our dedicated group of experienced peer mentors will work with you to improve your skills in such areas as essay and report writing, time management, lecture-listening, note-taking, and studying for tests and exams. All Centre events and services are free.

The Centre is located in the Meeting Place, South Building, Room 2115B. For more information, please contact:  
(905) 828-3858  
[acadskills@utm.utoronto.ca](mailto:acadskills@utm.utoronto.ca)  
[www.utm.utoronto.ca/~w3asc](http://www.utm.utoronto.ca/~w3asc)

### AccessAbility Resource Centre

UTM and the AccessAbility Resource Centre are committed to including students who have disabilities into all aspects of campus life (e.g., physical access on campus, liaison with faculty, staff and community agencies).

The Centre provides services to students who have a physical, sensory, or learning disability, mental health disorder, acquired brain injury, or chronic health condition, be it a visible or hidden condition. Students who have temporary disabilities (e.g., broken dominant arm) are also eligible to receive services. All students must have an intake interview with the Manager to discuss their individual needs.

Services to students include:

- alternative test and examination arrangements
- notetaking and volunteer services
- access to a Learning Strategist for students with learning disabilities
- evaluation of needs for assistive technology
- access to registered psychologists for psychoeducational assessments and consultations
- information and resource materials on disabilities, health considerations and disability related issues
- referrals to professionals within the UTM campus, the university and in the community.

For more information please contact the Manager at:  
Room 1113, South Bldg.  
Phone/TTY: (905) 828-5406  
[access@utm.utoronto.ca](mailto:access@utm.utoronto.ca)  
[www.utm.utoronto.ca/access](http://www.utm.utoronto.ca/access)

### Advising and Counselling

#### Academic

Academic advising is available through individual academic departments and Registrarial Services.

Departmental advisors offer detailed information on their respective programs (specialists, majors, and minors) and individual courses. Many departments offer brochures or handbooks through their offices, providing supplemental information to that contained within this Calendar. Any student who has a problem relating to the content of a course or conduct of an

instructor, and cannot resolve the concern directly with the instructor, should notify the departmental advisor. Contact information is noted above the departmental descriptions in the course descriptions section of this Calendar.

Registrarial Services provides information related to degree requirements, Faculty rules and regulations, interpretation of the Calendar, and personal or academic concerns that influence academic performance.

Room 2122, South Bldg.

(905) 828-5399

[www.utm.utoronto.ca/reg](http://www.utm.utoronto.ca/reg)

#### **Personal**

Students may seek assistance with personal concerns through professional counsellors available on campus. Personal counselling is available through Registrarial Services, and the University Health Service offers psychiatric consultation and counselling. Typical concerns for personal counselling include relationships and break-ups, family care concerns (including concerns with children and aging/unwell parents), cross-cultural misunderstandings, etc. Talking with counsellors can often help students more clearly understand their personal situations, and identify ways of coping with personal concerns. Campus personal counselling services maintain professional confidentiality.

Room 2122, South Bldg.

(905) 828-5399

(Also see *Health Service*)

#### **Financial**

Students needing information and/or assistance in meeting the costs of their education are welcome to contact Registrarial Services. Information is available regarding budget planning and management, academic and leadership-based scholarships, government financial assistance programs such as OSAP, and grants that help students meet unanticipated financial hardships.

Room 2122, South Bldg.

(905) 828-5234

#### **Campus Police**

The University of Toronto Police Service is a department devoted to providing a safe and secure atmosphere for students, staff, and visitors to the University. This is accomplished by providing education and assistance in personal safety and crime prevention.

Each officer of the University of Toronto Police has been appointed as a Special Police Constable as set out by the Ontario Police Services Act. Officers are equipped with full police powers with regards to arrest, search and seizure.

The University of Toronto Police are on duty 24 hours per day, 365 days a year and provide patrols of the campus by means of a marked police vehicle, bicycles, and on foot.

For further information, contact the

University Police at:

Room 2117, South Bldg.

(905) 828-5200

[police@utm.utoronto.ca](mailto:police@utm.utoronto.ca)

[www.utm.utoronto.ca/~police](http://www.utm.utoronto.ca/~police)

#### **Career Centre**

Room 3094, South Bldg.

(905) 828-5451

[careers@utm.utoronto.ca](mailto:careers@utm.utoronto.ca)

[www.utm.utoronto.ca/careers](http://www.utm.utoronto.ca/careers)

The Career Centre teaches lifelong career management skills. These skills enable students in all years, as well as recent graduates, to set career goals (based on self-awareness and knowledge of occupational and market trends) and then market themselves effectively to employers (summer, part-time or following graduation). Students are encouraged to begin developing career management skills from their first year in university. Come to the Career Centre to register with us.

Services include:

- *Individual* career and work search counselling
- *Workshops* (e.g. Work Search, Résumé and Cover Letter, Interviews) offered monthly
- *Critiques* of résumés and cover letters
- *Web site*: access job postings, find out about events and employer sessions, link to career resources

- *E-newsletter*: sign up to receive a weekly e-newsletter regarding jobs and events
- *Resource Library* with information about education, careers, and employment
- *Special Events*: Professional Schools Fair (October), Career Expo (October) and a panel series on "Careers" (starts January)
- *Extern Career Exploration* program
- *Employment Services*: electronic job boards for part-time, on-campus positions (OSAP Work-Study and hourly), summer, and work following graduation
- Access to career services at St. George and Scarborough campuses.

## Centre for Physical Education

UTM is a great place to be active and fit. With a wide variety of program choices, UTM students may participate in learning new skills, playing for the fun of it, or competing in intramurals, U of T-wide leagues or even play for the Varsity Blues!

- *casual recreational play* in a variety of games and sports
- lots of *instructional classes*
- group *fitness* classes for all levels. Individual fitness training available daily
- *intramural leagues*, special events and tournaments
- *compete* for UTM on many teams that play in U of T's Interfaculty league. UTM is always a strong contender
- *Varsity sports* at U of T are open to all students. UTM offers its own varsity rowing program on the Credit River
- *student leadership and employment* opportunities abound. Let us know how you can help us.

As a currently registered U of T student, you are eligible to use all athletic and recreation facilities on the three campuses of U of T. We look forward to you participating in our Centre's many facilities and programs. Join us for fitness, fun and fair play!

### Hours of Operation:

September - April

Monday - Friday 6:00 a.m. - 11:00 p.m.

Saturday - Sunday 10:00 a.m. - 5:00 p.m.

May - August

Monday - Friday 7:30 a.m. - 11:00 p.m.

Saturday - Sunday 10:00 a.m. - 5:00 p.m.

How to reach us:

Room 1114, South Building

Phone: (905) 828-3714

Fax: (905) 569-4354

ath@utm.utoronto.ca

[www.utm.utoronto.ca/physed](http://www.utm.utoronto.ca/physed)

## Conference Services

The perfect location for conventions and seminars, UTM offers the widest possible range of facilities for groups of 15 to 400. Conference Services deals with requests from outside organizations who wish to use the campus for meetings and gatherings of all types.

For guests, we also have Thomas Cottage, a cozy two-bedroom fully equipped/furnished cottage with fireplace, which is available on campus for visiting parents or lecturers.

(905) 569-4615

[amaughn@utm.utoronto.ca](mailto:amaughn@utm.utoronto.ca)

## Diversity Relations Officer (DRO)

The DRO is responsible for addressing the issues of gender, sexual orientation, disability, race, culture, ethnicity, socio-economic, and equity for the whole UTM community – students, staff and faculty. In addition, the DRO acts as a confidential counselling resource for individuals who may be experiencing personal difficulties with diversity issues or cross-cultural conflict. The DRO also aids students, instructors and staff in preventing/resolving misunderstandings. The office is located in Room 2077A, South Bldg.

Phone: (905) 569-4716

Fax: (905) 569-4652

[pnagra@utm.utoronto.ca](mailto:pnagra@utm.utoronto.ca)

## Health Service

The University Health Service offers a comprehensive medical service for students on the UTM Campus; treatment and advice are available throughout the year. Students are encouraged to discuss concerns about contraception, substance abuse, unplanned pregnancies, sexual life and sexually

transmitted disease. Contraceptive medications are available at a modest cost.

Psychiatric consultation and counselling to assist students with emotional and social problems are available.

Students seek counselling for a wide range of concerns, including feelings of despondency, apathy, inadequacy or inferiority and with problems in areas of sexuality, substance abuse, parental conflict, dating, peer relationships, inability to concentrate and examination anxiety.

The primary responsibility of the Health Service is to the student; therefore, *all consultations, medical and psychiatric, are strictly confidential* and form no part of any University record. Information acquired from students will not be given to anyone at any time without the written permission of the student.

Health Service is located in Room 1123, South Bldg. (around the corner from the Bookstore).

Phone: (905) 828-5255

Fax: (905) 828-3852

## Library

The UTM Library is the third largest circulating library at the University of Toronto, offering a collection of print, electronic and networked resources as well as individual study accommodation and facilities for students working on group projects. A Teaching/Computer Lab provides equipment for access to the Internet as well as to a wide variety of software. Microcomputers with voice output and large print readers are also available. The Library supports the academic activities of UTM students through extensive instructional programs and one-on-one assistance at the Librarians' Desk.

Students and faculty also have access to the wealth of collections of other libraries in the University library system and around the world through Resource Sharing.

Circulation Services: (905) 828-5236

Librarians' Desk: (905) 828-5237

[www.utm.utoronto.ca/library/](http://www.utm.utoronto.ca/library/)

## Librarians

E. Goettler, B.A., M.L.S.

P. Hannaford, B.A., M.L.I.S.

S. Hawrychuk, B.A., M.L.I.S.

P. King, B.A., M.L.S.  
M.A. Mavrinac, B.A., B.Ed., M.L.S.  
S. McCaskill, B.A., B.L.S., M.L.S.  
S. Russell, B.A., M.I.St.  
J. Seel, B.A., B.L.S., M.L.S.

## Office of the University Ombudsperson

As part of the University's commitment to ensuring that the rights of its individual members are protected, the University Ombudsperson investigates complaints from any member of the University not handled through regular University channels. The Ombudsperson offers advice and assistance and can recommend changes in academic or administrative procedures where this seems justified. In handling a complaint, the Ombudsperson has access to all relevant files and information and to all appropriate University officials. The Ombudsperson handles all matters in strict confidence, unless the individual involved approves otherwise. The Ombudsperson is independent of all administrative structures of the University and is accountable only to Governing Council.

The Ombudsperson maintains office hours at all three U of T campuses (for an appointment, please telephone or e-mail us). For additional information, please visit our website at: [www.utoronto.ca/ombudsman](http://www.utoronto.ca/ombudsman)

222 College Street, Suite 161  
Toronto, ON M5T 3J1  
(416) 978-4874  
[ombuds.person@utoronto.ca](mailto:ombuds.person@utoronto.ca)

## Quality Service to Students (QSS)

The QSS group is composed of students, student leaders and staff who meet monthly to discuss issues concerning student life at UTM.

Questions or items for discussion can be directed to:

Nancy Allison

Office of Student Affairs

Room 2115F, South Bldg.

Phone: (905) 828-3872

Fax: (905) 569-4652

[student\\_services@utm.utoronto.ca](mailto:student_services@utm.utoronto.ca)

## **Registrarial Services**

In addition to academic, personal, and financial advising and counselling, this office maintains students' records and provides course registration information and assistance, final examination scheduling, appeal procedures (petitions) for exceptions to university rules and policies, recruitment and admission information, graduation requests, certification letters, and authorization letters to attend other universities as visiting students. The office also publishes the UTM Calendar and *UTM Registration Guide*. Registrarial Services is located at:

Room 2122, South Bldg.

(905) 828-5399

[erinreg@utm.utoronto.ca](mailto:erinreg@utm.utoronto.ca)

[www.utm.utoronto.ca](http://www.utm.utoronto.ca)

## **Residences**

With 1023 places reserved for students, UTM has the largest on-campus residence facility at the U of T.

Undergraduate units are fully furnished and equipped with a refrigerator and stove.

The award-winning residences, Phase 6 and Phase 7, are furnished apartment style suites with four single bedrooms and two bathrooms. Wheelchair accessible units are available. Students may also be housed in 4-bedroom townhouses.

There are 84 two-bedroom apartments (unfurnished; 900 sq. feet) for families and graduate students. One unit is equipped for disabled persons and the Residence Office and Colman Lounge are fully accessible. There are 3- or 4-bedroom townhouses available in the Schreiberwood residence for student families. Furnished bachelor units in Schreiberwood are available for graduate students.

Off-campus housing lists are available at the Residence Centre.

Colman Lounge provides a space for studying, relaxing and doing laundry, with big screen television, pool table, etc.

*For further information contact:*

Residence Office

University of Toronto at Mississauga

3359 Mississauga Road

Mississauga ON L5L 1C6

Phone: (905) 828-5286

Fax: (905) 828-5473

[resdesk@utm.utoronto.ca](mailto:resdesk@utm.utoronto.ca)

[www.utm.utoronto.ca/residence](http://www.utm.utoronto.ca/residence)

## **Women's Centre**

The Erindale Women's Centre is open to all students, staff, and faculty at UTM and members of the surrounding Erindale Community; women and men. Regular meetings are held to promote various issues and to plan special events.

*For more information, contact:*

UTM Women's Centre

University of Toronto at Mississauga

3359 Mississauga Road N.

Room 131D, North Building

Mississauga, ON L5L 1C6

(905) 569-4605

[utnwomenscentre@hotmail.com](mailto:utnwomenscentre@hotmail.com)

## **Student Services on the St. George Campus**

**Aboriginal Student Services and Programs, Office of 1st Nations House, 3rd Floor**  
563 Spadina Avenue  
(416) 978-8227

**Chaplains' Office**  
40 Sussex Avenue  
(416) 978-8100

**Community Safety Coordinator**  
21 Sussex Avenue  
(416) 978-1485 (Coordinator)  
(416) 978-0385 (Assistant)  
allison.drew@utoronto.ca  
[www.utoronto.ca/communitysafety/](http://www.utoronto.ca/communitysafety/)

**Counselling and Learning Skills Services**  
Koffler Student Services Centre  
214 College Street, Room 111  
(416) 978-7970  
[mail.calss@utoronto.ca](mailto:mail.calss@utoronto.ca)  
[www.library.utoronto.ca/calss](http://www.library.utoronto.ca/calss)

**Family Care Office**  
214 College Street, Main Floor  
Phone: (416) 978-0951  
Fax: (416) 946-5466  
[family.care@utoronto.ca](mailto:family.care@utoronto.ca)  
[www.library.utoronto.ca/familycare](http://www.library.utoronto.ca/familycare)

**Hart House**  
7 Hart House Circle  
(416) 978-2452

**Housing Service, Student**  
Koffler Student Services Centre  
214 College Street, Room 203  
Phone: (416) 978-8045  
Fax: (416) 978-1616  
[housing.services@utoronto.ca](mailto:housing.services@utoronto.ca)  
<http://eir.library.utoronto.ca/studenthousing>

**International Student Centre**  
33 St. George Street  
Phone: (416) 978-2564  
Fax: (416) 978-4090  
[isc.information@utoronto.ca](mailto:isc.information@utoronto.ca)  
[uhip.information@utoronto.ca](mailto:uhip.information@utoronto.ca)  
[www.library.utoronto.ca/isc/](http://www.library.utoronto.ca/isc/)

## **Legal Services**

Faculty of Law  
720 Spadina Avenue, Suite 418  
(416) 934-4535  
[www.dls.utoronto.ca](http://www.dls.utoronto.ca)

## **Libraries**

Main libraries on St. George Campus are:

**Audiovisual Library**  
3<sup>rd</sup> Floor, Robarts Library  
130 St George Street  
(416) 978-6520  
[av.library@utoronto.ca](mailto:av.library@utoronto.ca)  
[www.library.utoronto.ca/avl](http://www.library.utoronto.ca/avl)

**Gerstein Science Information Centre**  
7 & 9 King's College Circle  
(416) 978-2280

**John P. Robarts Research Library**  
130 St. George Street  
(416) 978-8450

**Ombudsperson, Office of the University**  
222 College Street, Suite 161  
Phone: (416) 978-4874  
Fax: (416) 978-3439  
[ombuds.person@utoronto.ca](mailto:ombuds.person@utoronto.ca)  
[www.utoronto.ca/ombudsperson](http://www.utoronto.ca/ombudsperson)

**Race Relations and Anti-Racism Initiatives Office**  
21 Sussex Avenue, Room 217  
(416) 978-1259

**Sexual Assault Counsellor/Educator**  
Counselling and Learning Skills Services  
Koffler Student Services Centre  
214 College Street, Room 111  
Phone: (416) 978-0174  
Fax: (416) 978-1627

**Sexual Harassment Education, Counselling and Complaint Office**  
40 Sussex Avenue  
(416) 978-3908

**Women, Office of the Status of**  
Simcoe Hall, 27 King's College Circle  
(416) 978-2196  
[status.women@utoronto.ca](mailto:status.women@utoronto.ca)  
[www.library.utoronto.ca-wow](http://www.library.utoronto.ca-wow)

**Women's Centre/Food Bank**  
563 Spadina Avenue, Room 100  
(416) 978-8201

## **Useful Telephone Numbers**

### **Student Services and Organizations**

**Telephone (905) 828-**

Academic Skills Centre	3858
AccessAbility Resource Centre	3847
Athletic Council (UTMAC)	5498
Bookstore	5246
Career Centre	5451
Centre for Physical Education	3714
Child Care	3846
Conference & Room Bookings	5279
Development, Alumni and Public Affairs	5214
Erindale College Student Union (ECSU)	5249
Erindale Part-time Undergraduate Students (EPUS@UTM)	5422
Health Service	5255
Housing & Student Residences, Off-Campus Residences	5286
Library, Circulation Desk	5236
Medium (Newspaper)	5260
Personal Counselling for Students	5399
Registrarial Services	5399
SAC UTM	5494
Scholarships & Financial Aid	5399
Snow Line	5399
Women's Centre	569-4605

### **Department Secretaries**

**Telephone (905) 828-**

	<b>Room</b>	
Anthropology	227	3726
Astronomy	4037A	3800
Biology	3030	3999
Canadian Studies	227	5201
Chemistry	4037A	3800
Classics	227	5201
Computer Science	4037	5350
Drama	227	5201
Earth Science	3004	5295
Economics	K207	5257
English	227	5201
Environmental programs	3004	5295
European Studies	227	3747
Fine Art	227	3727
Forensic Science	227	3726
French	227	3747
Geography	3106A	5465
German	227	3747
History	227	3725
Italian	227	3747
Linguistics	227	3747
Management	K207	3914
Mathematics	4037	3801
Philosophy	227	3727

Physics	4037	5350
Political Science	K207	3921
Psychology	2037B	5414
Psychology PUMP Room	1099	5409
Religious Studies	227	3727
Sociology	2098	5395
Statistics	4037	3801
Women's Gender Studies	227	5201

### **Emergency Numbers**

Life or Death	911
Ambulance	911
Campus Police- Emergency	(905) 569-4333
- Information	(905) 828-5200
Credit Valley Hospital	(905) 820-6800
Peel Regional Police	(905) 453-3311
Health Service (Erindale)	(905) 828-5255

### **St. George Campus**

**Telephone (416) 978-**

Aboriginal Student Services and Program, Office of	8227
Association of Part-time Undergraduate Students (APUS)	3993
Athletics & Recreation, Department of	3436
Bookstore	7900
Career Centre	8000
Family Care Advisor	0951
Fees Department (Student Accounts)	2142
Hart House	2452
Housing Service	8045
International Student Centre	2564
Legal Services	(416) 934-4535
Library Services	8450
Ombudsperson, Office of the University	4874
Race Relations and Anti-Racism Initiatives Office	1259
SAC	4911
Sexual Harassment Education, Counselling and Complaint Office	3908
Snow Line	7669
Transcript Office	3384
Women, Office of the Status of	2196

### **Scarborough Campus**

Inquiries	(416) 287-7537
Snow Line	(416) 287-7026

## **6. GENERAL REGULATIONS**

### **Responsibilities of Students**

Your success at UTM relies on your response to the opportunities provided here. Instructors, advisors, counsellors and support services can help, however it is the responsibility of the student to ensure that:

- course selection is correct, timely and complete, with particular attention to deadlines
- all course, program and degree requirements are met
- you abide by the university's policy on academic honesty
- your contact e-mail, addresses and telephone numbers are accurate.

Misunderstanding, misapprehension, or advice received from another student will not be accepted as a reason for exemption from any regulation, deadline, program or degree requirement.

If you have questions or concerns about course content, tests or assignments within the term, first work directly with the relevant teaching assistant or instructor. If work with the instructor is unsatisfactory, speak with the department's discipline representative (available by contacting the department's academic secretary), and if necessary after that, with the academic dean of the division in which the course is offered. If you have questions or concerns around a Faculty rule (such as late course withdrawal, deferral of a final exam, suspensions), contact Registrarial Services about the possibility of a petition for exemption from the rule.

If you have questions or concerns about fees or refunds, contact Registrarial Services. You are encouraged to seek a balance of your academic commitments with extra-curricular opportunities available on and through campus.

### **Personal Information**

Personal information provided at the time of admission becomes part of your student record and should be kept up-to-date at all times. This information is a vital part of the student's official University record and is used to issue statements of results, transcripts, graduation information, diplomas and other official documents. The University is also required by law to collect certain information for the Federal and Provincial

Governments; this is reported only in aggregate form and is considered confidential by the University.

Any change in the following must therefore be reported immediately to Registrarial Services:

1. Legal name
2. Permanent address and telephone number
3. Mailing address and telephone number
4. Social Insurance Number
5. Citizenship status in Canada
6. Marital Status.

### **Student TCard**

The student TCard is a wallet-sized card bearing the student's photograph, used for identification purposes within the University, such as evidence of registration in the Faculty and as a Library card; and in a particular College or campus, participation in student activities, Athletic Association privileges, and identification at Faculty examinations.

The loss of the student TCard must be reported promptly to Registrarial Services, and the card must be surrendered if a student withdraws from the University, or transfers to another campus or Faculty. There is a fee of \$12.00 for replacement of lost cards.

Photos for student TCards are taken at Registrarial Services during regular office hours.

### **Registration**

Registration is a three-step process: (1) enrolling in the courses for which you are eligible; (2) paying or deferring your fees; (3) enrolling in a program once you have 4.0 credits.

Students may enrol in courses using the Student Web Service (SWS); in person at Registrarial Services or by mail.

Tuition fees are paid at one of the financial institutions listed on the back of your Fees Invoice. A personalized fees invoice will be mailed to your mailing address if you enrol in courses by the end of August. Students enrolling after this date must pick up their invoices at Registrarial Services.

Students enrolled in a Major or Specialist program in Commerce, Management, CCIT,

or Computer Science pay a Program fee. For all other students, fees are determined by the number of courses in which you are enrolled. The amount appearing on your invoice is calculated based on the number of courses you are enrolled in at the time the invoice is printed. You remain responsible for payment of fees for any additional courses you enrol in after the invoice is printed.

Detailed information about registration procedures is outlined in the *UTM Registration Guide* booklet issued to students in April. The Course Timetable can be found at [www.utm.utoronto.ca](http://www.utm.utoronto.ca).

The last dates for registration in courses and withdrawal from courses are in the "Sessional Dates" section of this Calendar and in the *UTM Registration Guide* booklet.

#### **NOTE:**

Dates for refunds of fees **do not correspond** to dates for academic withdrawal from courses.

Any student allowed to register after the end of the registration period will be charged a late registration fee (See Administrative User Fees listed in the *UTM Registration Guide* booklet).

Students should be aware that permission to register in the Faculty after the end of the registration period may be refused at any time.

#### **Letters Confirming Registration**

Students who require written proof of registration must allow at least three full business days for the processing of the request. Requests, accompanied by your student TCard and payment of \$7.00, must be made at Registrarial Services.

Although the Faculty is not on a formal year-by-year system, for the purpose of letters of confirmation of registration, the following equivalency chart is used:

No. of Passed Credits	Equivalent Year
0 - 4.0	Year I
4.5 - 9.0	Year II
9.5 - 14.0	Year III
14.5+	Year IV

#### **Re-activation of Student Record**

Former students who have not registered in the Faculty for twelve or more consecutive months, or new students who withdraw during their first year must re-activate their student record in order to resume their studies. They may request re-activation by completing a *Request to Re-activate Student Record* form and paying the administrative service fee. The form is available at [www.utm.utoronto.ca/~w3reg/forms.html](http://www.utm.utoronto.ca/~w3reg/forms.html) for download. Students who studied elsewhere during their absence from this University and now wish to transfer credit should follow the procedure outlined in the section "Courses of Other Universities."

**NOTE:** If a student re-activates their record but does not enrol in a course and pay tuition, the re-activation becomes invalid at the end of the session.

#### **Cancelling Courses**

Students who are cancelling (i.e., dropping by academic deadline date) a course, or courses, must do so by using the Student Web Service (SWS), or by completing a Course Change form at Registrarial Services before the final date to cancel courses, as specified in the Sessional Dates. (For information regarding dropping of courses after the deadline dates see "Petitions".)

#### **Financial Implications of Deletion of Courses**

Students who cancel a course or courses before the deadline may be entitled to a fee refund, the amount of which is determined by the date the Course Change form, or other written notification is received and recorded by Registrarial Services, or as recorded by use of the Student Web Service. The amount of the fee refund is based on the information outlined on the *Student Account Information* sheet. Students should pay strict attention to these dates to ensure that they receive the maximum refund.

**PLEASE NOTE: EVEN IF YOU DO NOT ATTEND OR STOP ATTENDING COURSES, YOU WILL BE REQUIRED TO PAY ALL FEES OWING. EVEN A SUCCESSFUL PETITION FOR LATE WITHDRAWAL WITHOUT ACADEMIC PENALTY WILL NOT ELIMINATE THE OBLIGATION TO PAY FULL FEES.**

The time in which you may receive any refund is brief. Be sure to check refund deadlines on your Student Account Information sheet. There are no exceptions to these refund deadlines. This means that you must be very careful of the financial implications of the date when you cancel (drop) a course. You control this action; the University does not.

### Ineligible Enrolment in Courses

Students who enrol in courses for which they are ineligible (e.g., balloted courses; courses with prerequisites, corequisites and/or exclusions) may have such courses deleted by Registrarial Services at the request of the Department.

### Students are Responsible for Monitoring their Records

Students who are still registered in a course after the final date to cancel (drop) will receive a grade for that course, even if they have never attended, have stopped attending or did not write the final examination. They are responsible for applicable fees regardless of any subsequent changes.

### On-line Enrolment Services

Students have access to a variety of enrolment services through the World Wide Web, using UT's Repository of Student Information (ROSI). Within established deadlines, students can use the web to add and cancel (drop) courses, change sections, list current courses, obtain final grades, and confirm intention to graduate. Students using the web can view their entire academic record, request or declare programs (minors, majors, specialists), order transcripts, review progress toward graduation, and view their financial account balances and detailed

charge and payment information. Refer to the *UTM Registration Guide* booklet for further information.

ROSI's Web Page: [www.rosi.utoronto.ca](http://www.rosi.utoronto.ca)

### Withdrawal from a Session

Students who find it necessary to stop attending all of their courses and wish to withdraw from the University for the Fall+ Winter or Summer Session must notify Registrarial Services, in writing or by the Student Web Service, of their intent by the last date to cancel courses. Merely ceasing to attend classes will result in a failing grade for each course. If students withdraw from a session within a refund period, before a refund of fees will be issued, they must:

- pay any outstanding fees,
- return any books to the Library and pay any outstanding fines,
- vacate any laboratory or athletic lockers and return any equipment in their possession.

### Courses

All courses are considered to be for degree credit, unless designated as "extra" courses. (This does not apply to "non-degree" students.)

The word "course" is used in two senses. In reference to a single course (such as "standing in a course," etc.) "course" refers equally to a full course or a half course. In reference to a given number of courses, "courses" refers to *full* courses, or the equivalent number in *full* and *half* courses.

To "pass a course," or "obtain standing in a course," normally means to obtain a mark of 50%, or more, in that course ("Credit" in "Credit/No Credit" courses).

### Choosing Courses

1. Students plan their own program, selecting from among all courses offered, subject to the following rules:
  - a) The degree and program requirements, distribution requirement and other regulations set out in the Calendar, *UTM Registration Guide* and departmental handbooks must be satisfied.

- b) All prerequisite, corequisite and exclusion requirements must be met.
  - c) No more than 6.0 100 level courses may be taken for degree credit. Additional 100 level courses completed will be designated as "extra" and will not count for degree credit or be included in the Grade Point Average (GPA).
2. **Students may not repeat any course that they have already passed.** The only exception occurs when students require a 100 level course with a specific grade higher than "D" for entry into a limited enrolment program. Students may repeat such a course *once* as an "extra" course, which will have no effect on the student's status or Grade Point Average. There are no supplemental examinations or provisions to "upgrade" a mark.
3. **Courses are credited towards a degree chronologically.** For example, if a student has already passed six 100 level courses and then enrolls in further 100 level courses, the more recent courses are counted as "Extra" courses. An exception occurs when a student who has completed 5.5 100 level courses enrolls in a full course at the 100 level in a subsequent session; the most recently taken half-course becomes "extra".

## **Exclusions, Prerequisites, Corequisites, Recommended Preparation, Extra Courses, Supplemental Courses**

**Exclusion:** Students may not enrol for degree credit in a course that is listed as an exclusion of a course that they are taking, or in which they have already obtained a pass standing. Students may be required to withdraw from the course during the Session of enrolment, or may be refused degree credit in the excluded course at any time during their academic career.

**NOTE:** Although it might not be noted in this Calendar, some courses offered at the St. George campus may be exclusions to UTM courses and vice versa. If UTM and St. George courses have similar titles or content, contact the offering department to determine if the course content is so similar

that the courses should be considered as "Exclusions".

**Prerequisite:** A course (or other qualification) required as preparation for a course. If students consider that they have equivalent preparation, they may ask the Department concerned to waive the stated prerequisite. Students who enrol in a course for which they lack the prerequisite may be removed from the course at any time at the request of the Department.

**Corequisite:** A requirement to be undertaken concurrently with another course. The corequisite will be waived if a student has previously obtained standing in it, or if the Department consents.

A student who withdraws from a course must also withdraw from any course for which the cancelled course is a corequisite, unless the Department giving the latter course agrees to waive the corequisite.

**Recommended Preparation:** Background material, or courses that may enhance a student's understanding of a course.

**Extra Courses** appear on official transcripts with the notation "EXT." Extra courses do not count towards the total number of credits required for a degree and are not included in the GPA, but may be used to satisfy distribution, program or prerequisite/corequisite requirements.

**Supplemental Courses** are courses taken after the maximum number of courses allowed (for degree credit) with the same three-letter designator have been passed. These "supplemental" courses will not count for degree credit but will count in the Grade Point Average, program and distribution requirements.

## **Course Loads and Overloads**

Students are encouraged to enrol in the number of courses with which they feel comfortable and which they can reasonably expect to complete successfully. Students who are enrolled in a total of 3.0 or more credits in the Fall+Winter Sessions (September to April) are considered to be full-time, and should attempt to balance their

## Courses

course load evenly between the Fall and Winter Sessions. Students are considered to be part-time if they are enrolled in 2.5 or fewer credits in the Fall+Winter Sessions. A student who is on Academic Probation may take no more than 5.0 credits in the Fall+Winter Sessions.

The maximum credit load in the Fall+Winter Sessions combined is 6.0 and in the Summer Session is 2.0 credits. Enrolment in credits over the maximum must be approved prior to registration. Students who wish to exceed these limits must complete a course overload request form, available at Registrarial Services, before registering in the course. Students will not receive special consideration of any kind because of a course overload.

To calculate course loads students need to consult the *Course Timetable* on the UTM web site to determine when the course is offered and the duration of the course. See Key to Course Descriptions, Section 9.

### Courses at Other U. of T. Campuses

UTM students are not permitted to take courses at the St. George or Scarborough campuses, and may be de-registered from such courses at any time. Exceptions may be considered when a specific course is required for the completion of a student's UTM specialist or major program, requiring written authorization in advance of such registration from the UTM department sponsoring the program, and subject to deadlines and registration conditions imposed by both campuses. A form to seek authorization is made available prior to the start of registration, both on-line at [www.utm.utoronto.ca/forms](http://www.utm.utoronto.ca/forms) and in UTM Registrarial Services.

### Courses at Other Universities

#### Letters of Permission

A Letter of Permission is prior confirmation that an intended course at another university is acceptable for transfer credit. Students may take a maximum of 5.0 credits elsewhere for transfer credit but only 1.0 transfer credit may be used to satisfy the degree requirement of 300/400 level courses (see Section 7 for Degree Requirements). To be eligible for a Letter of Permission, students must have a cumulative GPA of 1.50 or more. A grade of C- (60%) must be obtained for a credit to be transferred.

Students admitted with transfer credit should consult an academic advisor in Registrarial Services about the number of courses they may take on a Letter of Permission. Refer to the regulations on the Letter of Permission request form for further details.

#### Transfer Credits

Students who study elsewhere without a prior Letter of Permission may request transfer credit after completing the course(s). Credit will be granted if:

- a) the course is acceptable for credit in this Faculty;
- b) a grade of at least C- (60%) is attained;
- c) the student had a cumulative GPA of 1.50 or more in this Faculty at the time the course(s) was taken;
- d) the courses will not exceed the maximum allowable limit of transfer credits.

Requests for Letters of Permission and Transfer Credit are available from Registrarial Services. There is an administrative non-refundable service charge for either type of request.

### International Summer School Programs - Woodsworth College

Prepare yourself for a future in the global village by taking advantage of the opportunity to participate in one of the highly reputed Faculty of Arts and Science International Summer Programs.

Administered through Woodsworth College, summer programs are offered in England, France, Germany, Mexico, China, Italy, Jordan, and Australia. These programs are designed to give students an exciting international experience that fosters an

awareness and appreciation for the people, cultures, and social and economic systems of the host country.

Students take specially designed University of Toronto undergraduate degree credit courses, relevant to the location for a period of one to two months. The courses have field trips that complement and highlight the course materials. Courses are taught predominantly by University of Toronto professors and, with the exception of language courses, are taught in English. Typically, full credit second and third year courses are offered in disciplines such as history, political science, management, architecture, archaeology, and the languages. All University of Toronto students in good standing are eligible to apply. There is no minimum GPA requirement. The courses and grades show on students' transcripts as regular University of Toronto credits and are calculated into their CGPA.

**Application deadline for 2004:** March 1 (or February 2 for Hong Kong scholarships). Financial aid is available for some programs.

**For further information contact:**

The Professional & International Programs  
Woodsworth College  
119 St. George Street, Room 231/233,  
Toronto, ON M5S 1A9.  
(416) 978-8713  
[summer.program@utoronto.ca](mailto:summer.program@utoronto.ca)  
[www.summerabroad.utoronto.ca](http://www.summerabroad.utoronto.ca)

**International and Canadian Student Exchanges**

Students from all faculties and departments are encouraged to participate in the international and Canadian exchanges offered through the International Student Exchange Office (ISXO). These exchanges allow students to experience new cultures and languages in an academic setting while earning credits towards their U of T degree. Exchanges may be for one term or a full year, and most are open to both undergraduate and graduate students.

**International Exchanges** are available in a number of locations, including: Australia, Austria, Chile, the Czech Republic, Denmark, England, Estonia, France,

Germany, Hong Kong, Ireland, Italy, Japan, Korea, Mexico, the Netherlands, New Zealand, Poland, Scotland, Singapore, Spain, Sweden, Taiwan, and the West Indies.

Please check our website for an up-to-date listing of our more than 50 international exchange partners.

**Canadian Exchanges** include: McGill University, McMaster University, Queen's University, Université Laval, Université de Montréal, University of Alberta, University of British Columbia, University of Waterloo and the University of Western Ontario.

**Canadian Universities Study Abroad Program** is a joint program operated by Queen's University, University of British Columbia, University of Toronto and the University of Western Ontario. Students participating in this program will study at the International Study Centre (ISC) located in the Herstmonceux Castle in East Sussex, England. This program is only open to Upper year students.

**Awards** are available for most exchanges.

**Deadline** for all exchange programs in the 2004-2005 school year is February 6, 2004.

**For more information and application forms, and a list of current programs, contact:**

International Student Exchange Office  
Room 202, Koffler Student Centre  
214 College Street  
Toronto, ON M5T 2Z9  
Phone: (416) 946-3138  
Fax: (416) 978-6110  
[student.exchange@utoronto.ca](mailto:student.exchange@utoronto.ca)  
[www.utoronto.ca/student\\_exchange/](http://www.utoronto.ca/student_exchange/)

**Professional Experience Year**

The Professional Experience Year (PEY) provides students an opportunity to gain work experience in fields related to their programs of study. Full-time students with a CGPA of at least 2.0, with a minimum of 10.0, and a maximum of 15.0 credits, may apply to spend a twelve-to-sixteen-month period working in a related industry. This internship period normally occurs after second year for students completing a

B.A./B.Sc., or after second or third year for students enrolled in an Hon. B.A./Hon.B.Sc.

Students must seek approval from their Department Chair before applying to PEY. Students pay a non-refundable application fee at the time of application. If a position is accepted, a placement fee will be required from the student at the time of fall registration, no later than the first Friday after classes begin in September. Incidental fees granting part-time student status and allowing continued access to University facilities and services are also required at fall registration. The PEY Program strives to provide opportunities for all students registered in it, but cannot guarantee employment. For further information, contact the PEY Office at 416-978-6649. Applications will be available in September at the PEY office (44 St. George Street, Faculty of Applied Science and Engineering, Toronto, ON M5S 1A4) and at the UTM Career Centre. For specific departmental requirements, contact the department's Undergraduate Secretary.

**Students do not get degree credit for PEY200Y (the Professional Experience Year).**

### Transcripts

The transcript of a student's record reports grades of all courses completed by the end of the previous session and courses currently in progress (IPR), along with course average, information regarding academic status, including record of suspension and refusal of further registration, and completion of degree and subject POS<sup>t</sup> (program of study). Final course results are added to each student's record at the end of each session or sub-session (summer).

Individual courses that a student cancels within the normal time limit are not shown. However, when students have been permitted by petition to withdraw from a course after the deadline date, the course will appear on the transcript with a "WDR" notation.

Copies of the transcript will be issued at the student's request, subject to reasonable notice. Requests should be submitted, either on-line at [www.rosi.utoronto.ca](http://www.rosi.utoronto.ca), or in person, or in writing, to the Transcript Centre, Sidney Smith Hall, 100 St. George St., Toronto, Ontario, M5S 3G3.

*Request for Transcript* forms are available at Registrarial Services, Room 2122, South Bldg., University of Toronto at Mississauga. A fee of \$9.00 will be charged for each transcript issued. Payment **MUST** accompany such requests. Transcripts ordered via the web will be charged to a student's account if there is an outstanding balance on their account (service charges apply). For other payment options, refer to the web site ([www.rosi.utoronto.ca](http://www.rosi.utoronto.ca)).

Transcripts issued directly to students bear the official seal of the Faculty but are stamped "Issued to Student." Students must indicate at the time of the request if the purpose of the transcript is for enclosure in a self-administered application. Such transcripts will be issued in specially sealed envelopes. The UT Transcript Centre cannot be responsible for transcripts lost or delayed in the mail. Transcripts are not issued for students who have outstanding obligations with the University.

In accordance with the University's policy on access to student records, the student's signature or PIN (Personal Identification Number) is required for the release of the record.

## Faculty Term Work Regulations

The following regulations summarize the Faculty's implementation of the University's Grading Practices Policy, which is reprinted in Section 10 of this Calendar.

## Term Work

Both essays (or equivalent work) and examinations (including term tests) are normally required for standing in courses. In courses where only one form of evaluation is used, a single piece of work should not normally count for all of the final mark. Self-evaluation by individual students or groups of students is not permissible unless the specific consent of the Committee on Academic Standards is received.

As early as possible in each course, and no later than the last date to enrol in courses, the instructor must announce in a regularly scheduled class the methods by which student performance will be evaluated, and their relative weight in the final mark, including any discretionary factor and the due dates. These methods must be in accord with applicable University and Faculty policies.

Once the weight of each component of the course work is given, it may not be changed unless approved by a majority of the students present and voting at a regularly scheduled meeting of the class.

After the last date to withdraw from the course without academic penalty, no change in weighting may take place unless there is unanimous consent of all students present and voting, and notice must be given at the regularly scheduled class meeting previous to that at which the issue is to be raised.

**Instructors MUST assign, grade and return at least one significant assignment (worth at least 5% of course mark) as early as possible, and at the latest BEFORE the final date to withdraw without academic penalty. Please note that this does not apply to the financial refund dates.**

All term work must be submitted *on or before the last day of classes* in the course concerned, unless an earlier date is specified by the instructor. Students who for reasons beyond their control wish to seek an extension of this deadline must obtain approval from their instructor for an extension of the deadline. This extension may be for no longer than the end of the Final Examination Period. If additional time beyond this period is required, students must petition through Registrarial Services for a further extension of the deadline. (Refer to Petition Procedures).

Assignments are the property of the student and must be returned. Students must make any inquiries about the mark on a graded piece of work within one month of the return date of the work. Unclaimed term work must be kept by the instructor for one year after the end of the course.

## Re-marking Pieces of Term Work

A student who believes that his or her written term work has been unfairly marked may ask the person who marked the work for re-evaluation. Students have up to one month from the date of return of an item of term work to query the marking. If the student is not satisfied with this re-evaluation, he or she may appeal to the instructor in charge of the course if the work was not marked by the instructor (e.g., was marked by a TA). Such re-marking may involve the entire piece of work, and may raise or lower the mark.

Any appeal of the mark beyond the instructor in the course may only be made for term work worth at least **20% of the course mark**. Such appeals must be made in writing to the Department or Program within one month after the work was returned, explaining in detail why the student believes that the mark is inappropriate. The appeal must summarize all previous communications between the student and previous markers of the work. The student must submit the original marked piece of work.

If the Department believes that re-marking is justified, the Department shall select an independent reader. The student must agree in writing to be bound by the results of the re-reading process, or abandon the appeal.

# Term Tests

Where possible, the independent reader should be given a clean, anonymous copy of the work. Without knowing the original assigned mark, the independent reader shall determine a mark for the work. The marking of the work should be considered within the context of the course of instruction for which it was submitted. If the new mark differs substantially from the original mark, the Department shall determine a final mark, taking into account both available marks.

## Term Tests

No term test, or combination of term tests in an individual course, held in the last two weeks of classes at the end of term, may have a total weight greater than 25% of the final mark.

All term tests must be held before the last day of classes, and no term test may be scheduled during the December Examination Period (with the exception of term tests for courses with more than one lecture section, or with special permission of the divisional Dean), the "Reading Week" in February, or the study period preceding the Final Examination Period in April.

**Students who miss a term test will be assigned a mark of zero for that test unless they satisfy the following conditions:**

1. Students who miss a term test for reasons entirely beyond their control may, within one week of the missed test, submit to the instructor or Department a written request for special consideration explaining the reason for missing the test, and attaching appropriate documentation, such as a medical certificate.
2. If a written request with documentation cannot be submitted within one week, the Department may consider a request to extend the time limit.

3. A student whose explanation is accepted by the Department will be entitled to one of the following considerations:
  - a) In courses where there is no other term work as part of the evaluation scheme, a makeup test must be given.
  - b) In other courses, the Department may either give a makeup test OR increase the weighting of other graded work by the amount of the missed test. In no case may the weighting of the final examination in a 100 level course be increased beyond 2/3 of the total course mark.
4. If the student is granted permission to take a makeup test and misses it, then he or she is assigned a mark of zero for the test unless the Department is satisfied that missing the makeup test was unavoidable. No student is automatically entitled to a second makeup test.
5. A student who misses a term test cannot subsequently petition for late withdrawal from the course without academic penalty on the grounds that he or she has had no term work returned before the drop date.

**NOTE: Marks in term work and term tests are not petitionable through Registrarial Services. These are dealt with by the relevant instructor and department.**

## Statement of Results

Statements of Results are mailed by the University to students at their mailing address in late May and early September.

Final marks are available on the Student Web Service (SWS) within a month after the end of the examination period.

Registrarial staff **will not** give final marks to students by telephone.

## Academic Honesty

Honesty and fairness are considered fundamental to the University's mission, and, as a result, all those who violate those principles are dealt with as if they were damaging the integrity of the University itself. When students are suspected of cheating or a similar academic offence, they are typically surprised at how formally and seriously the matter is dealt with – and how severe the consequences can be if it is determined that cheating did occur. The University of Toronto treats cases of cheating and plagiarism very seriously.

Examples of offences for which you will be penalized include (but are not limited to):

- ◆ Using any unauthorized aids on an exam or test (e.g., "cheat sheets", etc.)
- ◆ Representing someone else's work or words as your own - plagiarism
- ◆ Falsifying documents or grades
- ◆ Purchasing an essay
- ◆ Submitting someone else's work as your own
- ◆ Submitting the same essay or report in more than one course (without permission)
- ◆ Looking at someone else's answers during an exam or test
- ◆ Impersonating another person at an exam or test or having someone else impersonate you
- ◆ Making up sources or facts for an essay or report.

As a student it is your responsibility to ensure the integrity of your work and to understand what constitutes an academic offence. If you have any concerns that you may be crossing the line, always ask your instructor. Your instructor can explain, for example, the nuances of plagiarism and how to use secondary sources appropriately; he or she will also tell you what kinds of aids – calculators, dictionaries, etc. – are permitted in a test or exam. Ignorance of the rules does not excuse cheating or plagiarism.

This information is taken from the brochure, "Academic Honesty", part of a series of UT publications to help students understand the University's rules and decision making structures. For copies, visit UTM Registrarial Services. All of the policies and procedures surrounding academic offences are dealt with in one policy: *"The Code of Behaviour on Academic Matters"*. The full text is located in the back of this calendar.

# Grading Scheme

## Grading Scheme

Students are assigned a grade in each course as follows:

Percentage	Grade	Value	Grade Definitions	
90 - 100	A+	4.0		
85 - 89	A	4.0	Excellent	Strong evidence of original thinking; good organization, capacity to analyze and synthesize; superior grasp of subject matter with sound critical evaluations; evidence of extensive knowledge base.
80 - 84	A-	3.7		
77 - 79	B+	3.3		
73 - 76	B	3.0	Good	Evidence of grasp of subject matter, some evidence of critical capacity and analytic ability; reasonable understanding of relevant issues; evidence of familiarity with the literature.
70 - 72	B-	2.7		
67 - 69	C+	2.3		
63 - 66	C	2.0	Adequate	Student who is profiting from their university experience; understanding of the subject matter; ability to develop solutions to simple problems in the material.
60 - 62	C-	1.7		
57 - 59	D+	1.3		
53 - 56	D	1.0	Marginal	Some evidence of familiarity with subject matter and some evidence that critical and analytic skills have been developed.
50 - 52	D-	0.7		
*Credit	CR	No Value		
0 - 49	F	0.0	Inadequate	Little evidence of even superficial understanding of subject matter; weakness in critical and analytical skills, with limited or irrelevant use of literature.
*No Credit	NCR	0.0		

There are no supplemental examination privileges in the Faculty.

\* As used in a Credit/No Credit evaluation

Other notations that do not have grade point values are:

AEG AEGROTAT STANDING - credit is assigned on the basis of term work and medical evidence. Authorized only by the Committee on Standing by petition.

EXT EXTRA COURSE - not for degree credit.

GWR GRADE WITHHELD PENDING REVIEW - applied to students charged with an unresolved academic offence.

IPR COURSE IN PROGRESS

NGA NO GRADE AVAILABLE

SDF STANDING DEFERRED - completion of course delayed by petition. Authorized only by the Committee on Standing.

WDR LATE WITHDRAWAL - without academic penalty.\*\* Authorized only by the Committee on Standing by petition.

\*\* The petition in this case is not for permission to withdraw, but is for removal of the failing grade from the student's record. Students remain responsible for applicable tuition fees.

## Grade Point Average

The Grade Point Average (GPA) is the weighted sum of the grade points earned, divided by the number of courses in which grade points were earned. "No Credit" in a Credit/No Credit course will be included. A half-course will carry half the weight of a full course. Courses noted "AEG" or "CR" or "EXT" or "GWR" or "IPR" or "PASS" or

"NGA" or "SDF" or "WDR" are not included in the average, nor are transfer credits or courses taken on a Letter of Permission.

Each Session a student will receive a GPA (calculated to 2 decimal places), which is the average of all their marks in the Session. To calculate: use the grade point values as listed in the Grading Scheme for each half course. Double it for each full course, and divide the result by the equivalent number of half courses.

Example: If you had 2.5 full course equivalents with a "B" in a full course, C+ in a half course and A- in a full course:

Full Course B = 6.00

Half Course C+ = 2.30

Full Course A- = 7.40

$$15.70 \div 5 = 3.14$$

All courses, including failures, must be calculated this way to produce a cumulative average of your complete record. **A failed course remains on your record and in your GPA even if you retake the course and pass it later.**

#### **Helpful Hint:**

The minimum Cumulative Grade Point Average (CGPA) required to remain in good standing is 1.50. Note that this is an **average**, not an exact percentage. Every grade that you receive **which is less than C-** (1.70) will act to lower your average to an unacceptable level. The CGPA is a weighted average so that you will need to achieve sufficient grades of C- (1.70) or better, to offset grades of less than C- in order to return to or remain in good standing. See the Grading Scheme chart.

**Every course in which you remain registered after the LAST DATE TO WITHDRAW WITHOUT ACADEMIC PENALTY will appear on your grade statement and be a permanent part of your transcript.**

There are three types of Grade Point Averages:

- a) The Sessional GPA is based on the courses completed in a single Session [Summer (May-August), or Fall

(September-December), or Winter (January-April)]

- b) The Annual GPA takes into account all courses completed in the Fall and Winter Sessions combined, and is calculated at the end of the Winter Session.
- c) The Cumulative GPA takes into account all courses (other than "extra" courses) taken in the Faculty.

Academic status will be assessed twice a year: at the end of the Winter Session (May) and at the end of the Summer Session (August). The GPAs used for status assessment at the end of the Winter Session will be the annual and the cumulative GPAs; the GPAs used for status assessment at the end of the Summer Session will be the sessional and the cumulative GPAs. **Status will not be assessed at the end of the Fall Session.**

At the end of the first Fall+Winter Sessions, the Annual GPA will be identical to the Cumulative GPA for purposes of assessing a student's academic status.

The Cumulative GPA of non-degree students who have completed a degree in the Faculty includes all courses taken both as a degree student and as a non-degree student.

## **Academic Status**

The following Regulations apply to both degree and non-degree students who have attempted at least 4.0 credits in the Faculty.

1. Students who are neither On Probation, Suspended, nor Refused Further Registration are described as **in good standing**.
2. Students shall be **on academic probation** who:
  - a) have a Cumulative GPA of less than 1.50 or
  - b) return from suspension.
3. Students who, at the end of any Session (Winter or Summer) during which they are **on probation**:
  - a) have a Cumulative GPA of 1.50 or more shall be in good standing;
  - b) have a Cumulative GPA of less than 1.50, but a Sessional (Summer) or Annual (Fall+Winter) GPA of 1.70, or more, shall continue on probation;

# Grades Review Procedure

- c) have a Cumulative GPA of less than 1.50 and a Sessional (Summer) or Annual (Fall+Winter) GPA of less than 1.70, shall be suspended for one calendar year unless they have been suspended previously, in which case they shall be suspended for three years.
- 4. Students who have been suspended for three years and are again liable for suspension shall be refused further registration in the Faculty, University of Toronto.

## NOTE:

- 1. There are three sessions (Summer, Fall, and Winter) in each calendar year and status is assessed following the Summer Session and the Winter Session. Status is not assessed following the Fall Session.
- 2. *Courses attempted* are those in which a student was enrolled on the last date for withdrawal, unless the academic penalty has been removed by petition.
- 3. CGPA and SGPA/AGPA will be calculated for students who have courses with SDF, GWR, or NGA. Academic Status will be assessed excluding these courses.
- 4. SDF and CGPA < 1.50: Students who finish the Session with a Cumulative Grade Point Average of less than 1.50 and who have been granted deferred standing in a course, will not be permitted to enrol in further courses until they have resolved the course with deferred standing and a final status for the Session has been determined.

## Grades Review Procedure

The Committee on Academic Standards administers the Grading Regulations and reviews course grades submitted by Departments. The Faculty, through this Committee, is responsible for assigning the official course grades, which are communicated to the students by the Faculty Registrar.

Each Chair appoints a Departmental Review Committee to review grades submitted by instructors. The committee may ask for

clarification of any anomalous results or distributions, or disparity between sections of the same course. Both the Departmental Review Committee, through the Chair, and the Faculty Review Committee, through the Dean, have the right, in consultation with the instructor of the course, to adjust marks where there is an obvious and unexplained discrepancy between the marks submitted and the perceived standards of the Faculty. Final marks are official, and may be communicated to the student only after the review procedure has taken place.

Grades, as an expression of the instructor's best judgment of each student's overall performance, will not be determined by any system of quotas.

## Departmental Appeals

Issues arising within a course that concern the pedagogical relationship of the instructor and the student, such as essays, term work, term tests, grading practices, or conduct of instructors, fall within the authority of the Department. Students are entitled to seek resolution of these issues, either orally or in writing, through the following successive stages: the course instructor; the Discipline Representative/Associate Chair; the Dean of the Division (in consultation with the Chair of the Department); the Dean of the Faculty. Refer also to Faculty Term Work Regulations for further information.

## Checking of Marks

All requests for re-reading of examinations, checking of marks and photocopies of examinations must be filed within six months of the end of the final examination period. After that date, the examinations are destroyed.

### UTM Courses

#### *Re-Reading of Examination*

- a) Obtain a photocopy of the examination from the UTM Registrarial Services. These are available after the release of final marks. There is a fee of \$13.00 for each examination.
- b) Complete a Request for Re-read of Final Examination form.

- c) In completing the request, demonstrate that your answer is substantially correct, using evidence other than your own opinion, such as: lecture notes, textbooks, similar questions in tests, etc.
- d) If the Registrar is satisfied that you have made a case for re-marking, your form will be attached to the original examination and sent to the Department. If you have not made a valid case, no further action will be taken unless you request that the matter be referred to the Committee on Standing. They will rule only on whether or not you have made a satisfactory case for re-reading.

### *Clerical Check of Marks*

- a) Complete a Request for Clerical Check of Marks form and submit it with the fee of \$13.00, unless this fee was already paid for a photocopy of the examination for the same course.
- b) Demonstrate by your calculation and/or explanation where you think the error has been made.
- c) If the Registrar is satisfied that you have a valid case, the form will be sent to the Department with any relevant documents. They will check that all term work has been accounted for and that the marks have been added correctly. **THE DEPARTMENT WILL NOT RE-READ THE FINAL EXAMINATION PAPER, NOR RE-MARK TERM WORK.**

If your mark is changed as a result of either of these requests, the \$13.00 fee will be refunded.

### **St. George Courses**

#### *Re-Reading of Examination*

- a) Obtain a copy of the examination from the Office of the Faculty Registrar, Sidney Smith Hall, 100 St. George St., Room 1006. These are available after the release of final marks. There is a non-refundable fee of \$13.00 for each examination.
- b) Complete a Request for Re-read of Final Examination form, available from the UTM Registrarial Services or the Office of the Faculty Registrar.
- c) Return the completed form **directly** to the Office of the Faculty Registrar with

an additional fee of \$35.00 for the re-read, which is refundable if the mark changes.

- d) In completing the request, demonstrate that your answer is substantially correct, using evidence other than your own opinion, such as: lecture notes, textbooks, similar questions in tests, etc. If your request is granted, the original examination will be forwarded to the Department. Students should note that when a course is failed, the examination must be re-read before the marks are reported.

### *Clerical Checks of Marks*

- a) Obtain a copy of the examination (see part "a", Re-Reading Examination).
- b) Complete a Request for Recheck of Course Mark form, available from the UTM Registrarial Services or the Office of the Faculty Registrar.
- c) Return the completed form directly to the Office of the Faculty Registrar with an additional fee of \$13.00, which is refundable if the mark changes. Demonstrate by your calculation and/or explanation where you think the error has been made. The form will be sent to the Department with any relevant documents. **THE DEPARTMENT WILL NOT RE-READ THE FINAL EXAMINATION PAPER, NOR RE-MARK TERM WORK.**

The following are the possible results of your requests:

- the mark may be changed upward,
- there will be no change in the mark,
- if another error is detected during the clerical check or re-reading, the mark may be lowered.

## What is a Petition?

A petition is a written request for waiver of a particular regulation. Petitions are submitted by completing a petition form available at Registrarial Services and are considered in confidence by or on behalf of the Committee on Standing. This committee, which meets monthly, is charged with interpreting and administering the rules of the Faculty and has the authority to grant exemptions to the regulations and to attach conditions to their decisions. Petitions should be legible and completely documented. Incomplete or illegible petitions will be returned to the student.

The onus is on the petitioner to demonstrate the validity of the request(s) and to provide any appropriate documentation. The Committee may refuse any petition by deciding that the grounds advanced do not support the request made.

Students who feel they have genuine difficulties complying with a particular regulation(s) should consult an academic advisor in Registrarial Services as soon as they know a problem exists.

## Deadlines for Petition Submission

Petitions requesting late withdrawal from courses must be filed by the last day of the December examination period for the previous Summer and Winter Sessions only. No changes can be made to the academic record after a degree is conferred.

Petitions concerning extensions of time to complete term work must be filed by the end of the examination period.

Petitions for deferred examinations must be filed by:

- May 23 for April/May 2003 exams.
- July 11 for June 2003 exams.
- August 29 for August 2003 exams.
- January 9, 2004 for December 2003 exams.

Petitions for deferred exams received after the deadline date will not be considered.

## Appeals

1. Committee on Standing decisions:  
Appeals of these decisions must be made in writing within 90 days to **Academic Appeals Board** at UTM (submit to UTM Registrarial Services).
2. Academic Appeals Board decisions:  
Appeals of these decisions must be made in writing within 90 days to **Academic Appeals Board of Governing Council**

Simcoe Hall  
27 King's College Circle  
Toronto, ON  
M5S 1A1

## Petitions to Defer Final Examinations

In case of illness or duress at the time of an examination, an affected student should consider not writing, should seek medical documentation and petition to defer the examination. *Students will not be allowed to petition to rewrite an examination.*

Petitions must be supported by documentation. Late petitions will be rejected.

- It is the responsibility of the student to provide supporting documentation, medical or other. It is the practice of some doctors to charge a fee for writing medical notes. Any cost incurred by the student in obtaining a doctor's note is the responsibility of the student.
- Medical Certificates must state clearly the duration of the illness and show that the doctor was consulted at the time of the illness.
- Students who are too ill to come to Registrarial Services on the day of the examination should call (905) 828-5399 (and press 7) to report the illness and come in as soon as possible to file the petition.
- Students who become ill during the examination should report to the Health Service or to Registrarial Services immediately.
- If the petition is not based on medical grounds, other supporting documentation should be attached.

The Committee will not consider requests to defer final examinations based on vacation or personal plans.

Successful petitions will not excuse you from any of the work of the course, but may allow you to write your examination at a later date and/or an extension of time to complete term work.

**STUDENTS WILL BE REQUIRED TO PAY A FEE OF \$70.00 FOR EACH DEFERRED EXAMINATION up to a maximum of \$140.00.**

Students who miss a deferred examination will receive a grade of "0" for the final examination in the calculation of the final grade and will not be permitted a further deferral unless a petition is granted. In this case, the "SDF" notation will be replaced by the original grade.

**SDF AND CGPA < 1.50:**

Students who finish the Winter Session or the Summer Session with a Cumulative Grade Point Average of less than 1.50 and who have been granted deferred standing in a course, will not be permitted to enrol in further courses until they have resolved the course with deferred standing and a final status for the Session has been determined.

Students who must write a deferred examination in a course that serves as a prerequisite for subsequent courses may enrol in those courses at the discretion of the Department, and provided that the term mark in the prerequisite (deferred) course is at least 60%. Failure to pass the prerequisite course or to meet other Departmental grade standards may result in cancellation of enrolment in the subsequent courses.

**Schedule for Deferred Examinations**

Deferred examinations will be scheduled for the next examination period if the course is offered in the session immediately following the missed examination. For all others, the examination will be scheduled for the deferred examination week in August or for the deferred examination week in February.

**Faculty Final Examinations**

A Faculty final examination, common to all sections of the course and counting for between one-third and two-thirds of the final mark, must be held in each 100 level course, unless exemption has been granted by the Committee on Academic Standards. In 200, 300 and 400 level courses, the Departments will decide whether or not an examination is appropriate, and report to the Committee.

Final examinations are held at the end of each session or sub-session. Students who make personal commitments during the examination period do so at their own risk. No petitions will be accepted for deferred examinations to accommodate **personal or vacation plans**. Students are expected to be available for the entire examination period. Information regarding dates and times of examinations will not be given by telephone. The examination timetable is posted in advance of the examination period. A copy of the examination timetable is posted outside Registrarial Services. Examination information is available on the web site at: [www.utm.utoronto.ca](http://www.utm.utoronto.ca).

Students taking courses during the day may be required to write evening examinations, and students taking evening courses may be required to write examinations during the day.

The relative value of each part of a written examination must be indicated on the question paper.

The ratio of term marks to examination mark will be the same for all sections of multi-section courses that have final examinations.

**Examination Conflicts**

UTM students who have two University of Toronto final examinations in the same time slot, or three consecutive final examinations (e.g., morning+afternoon+evening of the same day, or afternoon+evening+next morning or evening+next morning+next afternoon), should contact Registrarial Services by no later than the deadline listed on the UTM Examination Schedule.

# Examinations

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In the case of a conflict between a final examination and a term test, the final examination takes scheduling priority. Students should contact the department offering the term test to make arrangements to write the test at an alternate time.

## Accommodation for Religious Reasons

Requests for religious accommodation during final examinations must be accompanied by suitable documentation from the student's religious leader. The documentation must be on appropriate letterhead noting the date(s) and time(s) of the student's involvement and must be submitted to Registrarial Services by the date listed on the UTM Examination schedule. Late requests for accommodation for religious reasons will be considered as petitions for deferred examinations.

## Rules for the Conduct of Examinations

1. No person will be allowed in an examination room during an examination except the candidates concerned and those supervising the examination.
2. Candidates must appear at the examination room at least 20 minutes before the commencement of the examination.
3. All candidates must bring their TCards (or signed student cards) and place them in a conspicuous place on their desks.
4. Bags, coats and books are to be deposited in areas designated by the Chief Presiding Officer and are not to be taken to the examination desk or table. Students must place their purses, pouches and wallets on the floor under their chairs.
5. The Chief Presiding Officer has authority to assign seats.
6. Candidates shall not communicate with one another in any manner whatsoever during the examination.
7. No materials shall be brought into the room or used at an examination except those authorized by the Chief Presiding Officer or Examiner.
8. Candidates who bring any unauthorized material into an examination room or who assist, or obtain assistance from other candidates, or from any unauthorized source, are liable to penalties under the *Code of Behaviour on Academic Matters*, including the loss of academic credit and expulsion.
9. Students may not have the following items at their examination tables: cellular telephones, pagers, wristwatch computers or personal digital assistants.
10. **Students who are less than 30 minutes late** for a final examination may enter the examination room and begin writing. The Chief Presiding Officer is not required to give any extra time.  
**Students who are more than 30 minutes late** for a final examination must report immediately to Registrarial Services, Room 2122, South Building, to petition for a deferred examination.
11. To ensure minimal disruption at the beginning and end of the examination,

- students must remain seated at their desks for:
- at least the first thirty minutes of the examination and
  - the final ten minutes of the examination.
12. At the conclusion of an examination, all writing shall cease, and the Chief Presiding Officer may refuse to accept the papers of candidates who fail to observe this requirement.
13. Examination books and other material issued for the examination cannot be removed from the examination room except by authority of the Chief Presiding Officer.

### Outside Centre Examinations

If students have a good reason for being unable to sit an examination at the University of Toronto, they can petition for permission to write an examination at an Outside Centre institution. The student submits a petition to UTM Registrarial Services with supporting documentation. The student is responsible for finding an acceptable university and contact person to supervise the examination. If the petition is granted, the student will write the examination at the originally scheduled date and time under the supervision of staff at another university. A fee of \$70.00 per examination is to be paid to UTM Registrarial Services. Students are responsible for any fees charged by the host university. Petitions must be received at least four weeks before the beginning of the examination period.

**SUCH PERMISSION IS GRANTED  
ONLY IN EXCEPTIONAL  
CIRCUMSTANCES.**

## **7. DEGREE REQUIREMENTS**

### **Degrees Offered**

UTM offers the following degrees:

Honours Bachelor of Arts
Honours Bachelor of Science
Bachelor of Commerce

**NOTE:** The University's Governing Council has approved the elimination of "three-year degrees" (B.A. and B.Sc.) at the St. George and Mississauga campuses. This change will have NO impact on students who entered UTM prior to 2003 Summer.

Students entering in the summer of 2003 and thereafter DO NOT have the option of obtaining a "three-year degree".

The requirements for the Honours B.A., B.A., Honours B.Sc., B.Sc. and B.Com. are listed on the next two pages. Whether a student receives an "Arts" degree or a "Science" degree depends on the Program(s) the student completes. In the Program Section, each Program lists the degree received (for instance, "ENGLISH (Arts), "GEOGRAPHY (Science)," etc.).

The word "credit," as used in the listing of degree requirements, means a full course or two half courses. In order to "obtain standing" in a course, a student must receive at least a passing grade (50%) in that course.

Students who are eligible to obtain a B.A. or B.Sc. degree, and who continue their studies, will not graduate a second time, but will be able to upgrade the 15.0 credit degree to an Honours degree. A B.A. or B.Sc. degree leads only to an Honours degree in the same field; i.e., a B.A. leads only to an Honours B.A.

### **Requesting Graduation**

Students must monitor their own progress to degree completion. The Faculty of Arts and Science will identify students who may have completed the appropriate number of credits to qualify for graduation. If you intend to graduate, you must confirm your intention via the SWS. The SWS will communicate to you the type of degree with which you will be graduating. If the degree is incorrect, you must contact Registrarial Services.

Deadlines are listed in this Calendar under Sessional Dates.

### **Academic Information Sources**

- Consult Registrarial Services academic advisors regarding degree requirements (including acceptable program combinations);
- Consult the relevant Department regarding specific program requirements.

### **Second Degree Requirements**

Students beginning a second degree at UTM are normally exempted from the first year of the degree requirements by being granted five (5.0) credits, 4.0 at the 100 level and 1.0 at the 200 level, regardless of the number of previous degrees held. Students who already hold a degree from the Faculty of Arts and Science, or from University of Toronto at Scarborough, may complete a second degree only of an alternate type (i.e., if a student has a B.A. degree, then he/she may not complete a second B.A. degree).

Students from Faculty of Arts and Science (St. George Campus) or from U of T at Scarborough or from another faculty at U of T should contact the Office of Admissions concerning admission to UTM.

Students applying to the University of Toronto at Mississauga, with a completed degree from another institution should refer to the Admission Information in Section 2.

**NOTE:** Students who have a degree with a Major/Specialist in either Commerce or Economics cannot do a B.Com. as a second degree. This is due to the extensive overlap of courses between the two degrees.

### **Distribution Requirements**

To qualify for a degree, students must complete at least 1.0 credit from each of the following divisions: Humanities, Social Sciences, Sciences. Refer to the chart on the next page.

- Please consult a UTM Registrarial Services academic advisor if using St. George courses that do not appear in the Distribution Requirement Chart.
- Not all courses offered fulfill Distribution Requirements.

## Distribution Requirement Chart

<b>Humanities</b>	
Classics	German
Drama	History
English	Italian
ERI100H, 200Y, 201H, 202H, 203H**, 300Y	JFI
EUR200Y**	Linguistics
Fine Art	MGD
French	Philosophy
	Religion
	VCC
<b>Social Sciences</b>	
Anthropology*	Management (except MGD)
CCT319H, 321H, 322H, 324H, 424H	MAT133Y
Economics*	Political Science
FSC250H, 260H	Sociology*
Geography*	WDW260H
JAL253H, 355H	WRI(except 203H, 303H)
<b>Sciences</b>	
ANT101H, 200Y, 203Y, 205H, 306H, 310H, 312H, 313H, 317H, 318H, 327H, 331Y, 332Y, 334Y, 338H, 339H, 405Y, 411H, 414H, 415Y, 418H, 430Y, 431H, 434H, 438H, 439Y	
Astronomy	
Biology	
CCT307H, 316H, 326H, 370H, 371H, 379H, 383H, 384H, 400H, 405H, 411H	
Chemistry	
Computer Science	
ECO220Y, 227Y	
ENV100Y, 317H, 377H	
Earth Sciences	
GGR214H, 217H, 227H, 261H, 276H, 303H, 305H, 307H, 309H, 311H, 315H, 316H, 319H, 321H, 337H, 338H, 372H, 375H, 376H, 379H, 394H, 407H, 417Y(P.I.), 463H, 479H, 488H	
Forensic Science (except FSC250H, 260H)	
JBC	
JCP	
Mathematics (except MAT133Y)	
Physics	
Psychology	SOC300Y
SCI398Y	Statistics

### NOTE:

\*Some courses offered by the Social Science departments are designated as Science credits for the purpose of the Distribution Requirement. They are listed individually under Sciences.

\*\*Can alternatively be designated as Social Science.

### Requirements for a Bachelor of Commerce Degree (B.Com.)

To qualify for a Bachelor of Commerce degree, a student must meet the following requirements:

#### 1. COURSE REQUIREMENTS:

- Obtain standing in at least 20.0 credits, meeting the following criteria:
- No more than 6.0 credits may be 100 level.

- Complete 5.0 credits from disciplines other than Management (MGT/MGM) and Economics (ECO). Courses taken to fulfill #2 and #3 may also be counted towards meeting this requirement.

#### 2. PROGRAM REQUIREMENTS:

Complete the requirements of the Specialist Program in Commerce and Finance (see Section 8).

#### 3. DISTRIBUTION REQUIREMENT:

Complete the Distribution requirement, which consists of at least 1.0 credit from each of the following divisions: Humanities, Sciences, Social Sciences (see chart to left).

#### 4. GRADE REQUIREMENT:

Achieve a Cumulative GPA of 1.85 or more.

### NOTES:

#### 1. Number of COM(G), MGD, MGT, MGM and ECO Courses

No more than 15.0 COM(G), MGD, MGT, MGM and ECO courses may be taken for degree credit (see Commerce and Finance Program, Section 8).

Note: STA(250H, 255H(G))/(257H, 261H) are counted as ECO courses.

#### 2. Information Sources:

- Consult Registrarial Services academic advisors regarding degree requirements.
- Consult the Management Department regarding specific program requirements.

## **Requirements for an Honours B.A. (Hon.B.A.) or Honours B.Sc. (Hon.B.Sc.)**

The degree received depends on the Program(s) a student completes. To qualify for an Honours degree, a student must meet the following requirements:

### **1. COURSE REQUIREMENTS:**

Obtain standing in at least 20.0 credits, meeting the following criteria:

- a) No more than 6.0 credits may be 100 level;
- b) At least 6.0 credits must be 300/400 level (no more than 1.0 300/400 level transfer credit may be counted);
- c) No more than 15.0 credits may have the same three-letter designator.

### **2. DISTRIBUTION REQUIREMENT:**

Complete the Distribution requirement, which consists of at least 1.0 credit from each of the following divisions: Humanities, Sciences, Social Sciences (see page 38).

### **3. GRADE REQUIREMENT:**

Achieve a Cumulative GPA of 1.85 or more.

### **4. PROGRAM REQUIREMENTS**

#### **a) FOR HONS. B.A. DEGREE:**

Minimum requirements:

- 1 Specialist *or*
- 2 Majors (12.0 distinct courses) *or*
- 1 Major, 2 Minors (12.0 distinct courses)

#### **b) FOR HONS. B.Sc. DEGREE:**

Minimum requirements:

- 1 Specialist *or*
- 2 Majors (12.0 distinct courses) *or*
- 1 Major, 2 Minors (12.0 distinct courses and at least 2 Science programs)

**NOTE:** Students registered in the Faculty BEFORE 2000-2001 may also complete three Minor Programs (12.0 distinct courses). For Hons.B.Sc., at least two of the three programs must be in Science.

### **NOTES:**

- a) The Faculty limits the number of courses that can be counted for more than one program. When completing a combination of programs, a student must complete at least 12.0 different (distinct) courses that apply to the programs.
- b) A maximum of two Majors or two Specialists, or one Major and one Specialist, will be permitted.
- c) In addition to b), one Minor will be permitted.
- d) A Specialist may be completed only within the Honours degree.

These 15.0 credit degrees are AVAILABLE ONLY to students who entered UTM prior to 2003 Summer.

## **Requirements for a B.A. or B.Sc. Degree**

The degree received depends on the Program(s) completed. To qualify, students must meet the following requirements:

### **1. COURSE REQUIREMENTS:**

Obtain standing in at least 15.0 credits, meeting the following criteria:

- a) No more than 6.0 credits may be 100 level.
- b) At least 3.0 credits must be 300/400 level (no more than 1.0 300/400 level transfer credit may be counted).
- c) No more than 10.0 credits may have the same three-letter designator.

### **2. DISTRIBUTION REQUIREMENT:**

Complete the Distribution requirement, which consists of at least 1.0 credit from each of the following divisions: Humanities, Sciences, Social Sciences (see page 38).

### **3. GRADE REQUIREMENT:**

Achieve a Cumulative GPA of 1.50 or more.

### **4. PROGRAM REQUIREMENTS:**

#### **a) FOR B.A. DEGREE:**

Minimum Requirements:

- 1 B.A. Major *or*
- 2 Minors (at least 1 B.A. Minor) (8.0 distinct courses)

#### **b) FOR B.Sc. DEGREE:**

Minimum Requirements:

- 1 B.Sc. Major *or*
- 2 B.Sc. Minors (8.0 distinct courses)

- c) A Specialist program is not permitted within a 15.0 credit degree.

### **NOTES:**

- a) The Faculty limits the number of courses that can be counted for more than one program. When completing a combination of two Minors, a student must complete at least 8.0 different (distinct) courses that apply to the programs.
- b) A maximum of two Majors will be permitted.
- c) In addition to b), one Minor will be permitted.

### Program

**Definition:** a program is a sequence of courses in one or more disciplines that are grouped together to form a cohesive area of study.

### Program Enrolment

All degree students **must** enrol in a program. This must be done when they register for their **NEXT** Summer or Fall Session after they have passed 4.0 credits. If admitted with transfer credit for 4.0 courses or more, they must do this when they first register in the Faculty. Students admitted as "non-degree students" may not enrol in a program.

Entry to programs is based on successful completion of 4.0 credits, including prerequisite courses. Some programs also require specific standing in individual courses and/or a minimum grade point average. See individual program outlines in Section 8 for detailed information.

Completion of a Program is only one part of the Degree Requirements. Variations made in Program details for individual students do not in any way affect completion of the rest of the Degree Requirements. Students should be aware that completion of Program Requirements does not ensure that Degree Requirements have been met. Students are required to complete 6.0 credits at the 300/400 level for an Honours B.A./B.Sc. degree or Bachelor of Commerce degree, or 3.0 credits at the 300/400 level for a B.A./B.Sc. degree, including courses required for a Program. If the Program requires fewer courses at this level, other 300/400 level courses may be counted to fulfill this degree requirement. See Section 7 for complete Degree Requirements.

### Methods of Program Enrolment

Depending on the enrolment restrictions imposed by the Departments, a student can:

Enrol using the SWS. For Limited Enrolment programs see the Registration Guidelines for the dates and deadlines to apply to these programs

or

Enrol in person at Registrarial Services for programs that are not Limited Enrolment. For Limited Enrolment programs you must apply using the SWS.

### Types of Programs Available:

**Specialist Programs**—consisting of 9.0 to 16.0\* credits (out of the total of 20.0 credits required for an Hon. B.A. or Hon. B.Sc.), including at least 4.0 300/400 level credits, 1.0 of which must be at the 400 level.

**Note:**

A Specialist program is allowed only within the Honours (B.A. or B.Sc.) degree or B. Com. degree.

**Major Programs**—consisting of 6.0 to 8.0\* credits, including at least 2.0 300/400 level credits.

**Minor Programs**—consisting of 4.0\* credits, including at least 1.0 300/400 level credit.

\* *Courses may have prerequisites not listed in the program, but which must also be taken.*

**NOTES:**

1. In the biological and science programs there may be occasions when anatomical, biochemical, physiological or pharmacological observations are made by students on themselves or on fellow students. These include some common diagnostic or immunization procedures. Unless a valid reason exists, students are expected to participate in such exercises. If any investigative work does not form part of the Program, participation is voluntary.

2. **Programs at St. George Campus** Commencing 2003 Summer, UTM students may not enrol in St. George programs.

**NOTE:** Students enrolled prior to 2003 Summer in St. George programs can complete them.

3. **Programs at Scarborough Campus** UTM students may not enrol in Scarborough programs.

# PROGRAMS

## Program Requirements

1. Students must enrol in at least one and no more than three programs (of which only two can be Majors and/or Specialists), after passing their fourth credit.
2. Students must meet any enrolment requirements for a program as stated in the Calendar. If students do not meet these requirements, they may subsequently be removed from the program.
3. The Program(s) students complete determines whether they receive a science or an arts degree.

**In this section each Program indicates the type of degree to which it leads.**

- One Specialist in a Science area leads only to an Hon. B.Sc.
- One Major in a Science area, plus one Major in an Arts area, lead either to an Hon. B.Sc. or an Hon. B.A. - your choice (two majors must include 12.0 different courses).
- In combinations of one Major + two Minors, two of the three programs must be in Science areas for a Hon. B.Sc. (combinations must include 12.0 different courses).
- If two Minors are being used to receive a B.Sc. degree, both Minors must be in Science areas (two Minors must include 8.0 different courses).

## Courses

In this Calendar the term "credit" is used to describe a full course or the equivalent in half courses. Courses are designated by their credit value as follows:

Y Full credit course

H Half credit course

## Self-Designed Program of Study

Students wishing to pursue a program other than or in addition to those listed in this section may apply, through their Dean, for a Self-Designed Program of Study. Such students should submit a coherent grouping of courses designed to meet their individual needs, and which is substantially different

from any program existing in the UTM Calendar.

### Self-Designed Program of Study (Arts)

Specialist Program ERSPE0408  
Major Program ERMAJ0408

### Self-Designed Program of Study (Science)

Specialist Program ERSPE0755  
Major Program ERMAJ0755

## Symbols and Terms Used in Program Requirements and Course Descriptions:

- (P.I.) Permission of instructor required to enrol.  
(I) Open to first-year students (shown after 200+ course number).  
(G) Course available only on the St. George Campus.

(,) comma  
(;) semi-colon      } means AND  
(&) ampersand  
(/) slash              means OR

**"First Year," "Second Year," etc.:**  
Sequences of courses are given as guides, but need not be followed in the exact order listed, provided all pre- and co-requisites are observed.

**Higher Years = Second, Third and Fourth Years**

- 200 level** = Courses numbered in the 200's ONLY  
**200+ level** = Courses in the 200's or 300's or 400's  
**300+ level** = Courses numbered in the 300's or 400's

**Animal Behaviour (Science)**

See Psychology

**Anthropology (Arts)****Specialist Program ERSPE1775**

Within an Honours degree, 10.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited. To qualify, students must have completed 4.0 courses (including ANT101H and ANT102H), achieved at least 65% in both ANT101H and ANT102H, and achieved a cumulative grade point average of at least 2.00. Students applying to enrol after second year must have completed 8.0 courses, achieved at least 65% in each of ANT200Y, 203Y and 204Y, and achieved a cumulative grade point average of at least 2.00.

*First Year:* ANT(101H, 102H)/100Y*Second Year:* ANT200Y, 203Y, 204Y*Higher Years:* 6.0 additional ANT courses. At least 4.0 of these must be at the 300/400 level, including 1.0 at 400 level.**Major Program ERMAJ1775**

7.0 credits are required.

*First Year:* ANT(101H, 102H)/100Y*Second Year:* ANT200Y, 203Y, 204Y*Higher Years:* 3.0 additional ANT courses at 300/400 level.**Minor Program ERMIN1775**

4.0 credits are required.

*First Year:* ANT(101H, 102H)/100Y*Second Year:* ANT200Y/203Y/204Y*Higher Years:* 2.0 additional ANT courses. At least 1.0 must be at the 300/400 level.**Anthropology (Science)****Specialist Program ERSPE0105**

Within an Honours degree, 10.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited. To qualify, students must have completed 4.0 courses (including ANT101H and ANT102H), achieved at least 65% in both ANT101H and ANT102H, and achieved a cumulative grade point average of at least 2.00. Students applying to enrol after second year must have completed 8.0 courses, achieved at least 65% in each of ANT200Y, 203Y and 204Y, and achieved a cumulative grade point average of at least 2.00.

*First Year:* ANT(101H, 102H)/100Y*Second Year:* ANT200Y, 203Y, 204Y*Higher Years:* 6.0 additional credits selected from the list of ANT science courses, of which 4.0 must be at the 300/400 level, including 1.0 at the 400 level.**Major Program ERMAJ0105**

7.0 credits are required.

*First Year:* ANT(101H, 102H)/100Y*Second Year:* ANT200Y, 203Y, 204Y*Higher Years:* 3.0 additional credits selected from the list of ANT science courses, of which at least 2.0 must be at the 300/400 level.**Art and Art History (Arts)****Specialist Program ERSPE0714**Within an Honours degree, at least 11.0 credits are required, comprised of 7.0 in FAS (or CCT courses offered from Sheridan) and 4.0 in FAH/VCC courses offered at UTM. For the official list of CCT and VCC courses that satisfy Art and Art History requirements see the departmental web site or the Discipline Representative. The maximum number of combined FAH and FAS credits is 16.0. Required courses are as follows: FAS143H, 145H, 146H, 147H, 232H\*, 248H\*, and FAH105H, 201H. A minimum of 4.0 300/400 level credits in FAH or FAS (see note 3 for distribution), 1.0 of which must be at the 400 level (in FAH/VCC or FAS or both), must be included. See *Notes* below for distribution details. No St. George courses may be substituted for the required 100 or 200 level core courses. Students enrolled before Fall 2003 should consult faculty

# PROGRAMS

advisors about completion of their program.

## The following progression of courses is strongly recommended:

### First Year:

1. 1.0 FAH credit, including FAH105H and either FAH201H or another 0.5 FAH at the 200 level
2. 2.0 FAS credits from the following: FAS143H, 145H, 146H, 147H, 232H\*, 248H.\* All of these courses are open to first year students.

### Second Year:

1. Any remaining of the required FAS courses cited above
2. 1.0 FAH at the 200 level
3. 1.0 FAS at the 200 level

### Third Year:

1. 1.0 FAH/VCC at the 300 level
2. 2.0 FAS at the 300/400 level

### Fourth Year:

1. 1.0 FAH/VCC at the 300/400 level
2. 1.0 FAS at the 300/400 level

### Notes:

1. Students must take at least 1.5 but no more than 2.0 FAH at the 200 level.
2. At least one 200 level H course in FAH/VCC must be taken in each of the following four areas: Ancient & Medieval; 15<sup>th</sup>-18<sup>th</sup> century; 19-21<sup>st</sup> century; 19<sup>th</sup> Contemporary; Visual Culture/Theory. See the departmental web site or the Discipline Representative for the distribution of courses by area.
3. Of the required 4.0 300/400 level credits, a minimum of 1.0 must be in FAH/VCC.
4. As studio space is limited in the 100 and 200 level FAS courses, priority will be given during the first registration period to students enrolled in the Art & Art History Major/Specialist, Art History Major/Specialist, CCIT Major, VCC Specialist, and to newly admitted students who indicated the Art & Art History code on their application. Students committed to the program should make sure that they are officially registered in the program as soon as possible.
5. All 300 and 400 level FAS courses must be balloted. Most 300 and 400 level FAH courses must be balloted.

Balloting is the process by which students interested in taking courses are granted permission to enrol. Although these courses are open to all students, priority will be given to students in the Art & Art History, Art History or VCC Specialist programs. Ballot forms and detailed instructions are available March 1<sup>st</sup> from the Fine Art Department, Room 227, North Building, UTM, phone (905) 828-3727 or from the Faculty of Arts, Room A100, Sheridan College, 1430 Trafalgar Rd., Oakville, Ont., L6H 2L1, phone (905) 845-9430, ext. 2571.

6. It is recommended that students take at least one of the following "practicum" courses: FAH451H; FAS453H, 454H.
7. \*FAS232H is open to first year students.
8. \*FAS248H is open to first year students.
9. No more than a combination of 16.0 FAH and FAS credits may be taken.

## Major Program ERMAJ0714

At least 7.0 credits are required, comprised of at least 4.0 in FAS (or selected CCT courses offered from Sheridan) and 3.0 in FAH/VCC courses offered at UTM. For the official list of CCT and VCC courses that satisfy Art and Art History requirements, see the departmental web site or the Discipline Representative. The maximum number of combined FAH and FAS credits is 12.0. Required courses are as follows: FAS143H, 145H, 146H, 147H, 232H\*, 248H\*, and FAH105H, 201H. A minimum of 2.0 300/400 level credits in FAH/VCC or FAS or a combination of the two, must be included. See *Notes* below for distribution details. No St. George courses may be substituted for the required 100 or 200 level core courses. Students enrolled before Fall 2003 should consult faculty advisors about completion of their program.

## The following progression of courses is strongly recommended:

### First Year:

1. FAH105H, 201H
2. 2.0 FAS, from the following: FAS143H, 145H, 146H, 147H, 232H\*, 248H\*. All of these courses are open to first year students.

**Second Year:**

- 1.0 remaining of the required FAS courses cited above
- 1.0 FAH/VCC at the 200 level

**Third Year:**

- 1.0 FAH/VCC at the 300/400 level
- 1.0 FAS at the 300/400 level

**Notes:**

- Students must take at least 2.0 but no more than 2.5 FAH at the 200 level.
- At least one 200 level H course in FAH/VCC must be taken in three of the following four areas: Ancient & Medieval; 15<sup>th</sup>-18<sup>th</sup> century; 19-21<sup>st</sup> century; Visual Culture/Theory. See the departmental web site or the Discipline Representative for the distribution of courses by area.
- Of the required 2.0 300/400 level credits, a minimum of 0.5 must be in FAH/VCC.
- As studio space is limited in the 100 and 200 level FAS courses, priority will be given during the first registration period to students enrolled in the Art & Art History Major/Specialist, Art History Major/Specialist, CCIT Major, VCC Specialist, and to newly admitted students who indicated the Art & Art History code on their application.**  
Students committed to the program should make sure they are officially registered in the program as soon as possible.
- All 300 and 400 level FAS courses must be balloted. Most 300 and 400 level FAH courses must be balloted.**  
Balloting is the process by which students interested in taking courses are granted permission to enrol. Although these courses are open to all students, priority will be given to students in the Art & Art History program, as studio space is limited. Ballot forms and detailed instructions are available March 1<sup>st</sup> from the Fine Art Department, Room 227, North Building, UTM, phone (905) 828-3727 or from the Faculty of Arts, Room A100, Sheridan College, 1430 Trafalgar Rd., Oakville, Ont., L6H 2L1, phone (905) 845-9430, ext. 2571.
- \*FAS232H is open to first year students.
- \*FAS248H is open to first year students.

- No more than a combination of 12.0 FAH and FAS credits may be taken.

**Art History (Arts)****Specialist Program ERSPE0615**

Within an Honours degree, 11.0 credits are required, comprised of at least 10.0 in FAH and VCC (distributed in 4 areas; see notes), and 1.0 in FAS or CCT courses offered at Sheridan College. For the official list of CCT and VCC courses that satisfy Art History requirements see the departmental web site or the Discipline Representative. The 10.0 credits in Art History must include FAH105H, FAH201H, 3.0 from the FAH 200 level core courses (including FAH201H), and 3.5 at the 300/400 level, of which 1.0 must be at the 400 level. Please note that no St. George courses may be substituted for the required 100 or 200 level core courses. Students enrolled before Fall 2003 should consult faculty advisors about completion of their program.

Specialists in Art History are strongly urged to structure their studies as follows:

*First Year:* FAH105H; FAH201H; 1.0 FAH at the 200 level

*Second Year:* 2.0 FAH at the 200 level, 1.0 FAH at the 300 level, 1.0 Visual Culture/Critical Theory

*Third Year:* 1.5 FAH at the 300/400 level, 1.0 Visual Culture and Critical Theory, 1.0 FAS

*Fourth Year:* Further FAH courses at the 300 and 400 levels

**Notes:**

- 2.0 credits must be taken at any level in each of the following four areas: Ancient & Medieval; 15<sup>th</sup>-18<sup>th</sup> century; 19<sup>th</sup>-21<sup>st</sup> century; Visual Culture and Critical Theory. Some courses may satisfy more than one of the distribution requirements. See the departmental web site or the Discipline Representative for the distribution of courses by area.
- No more than 4.0 FAH credits may be taken at the 200 level.
- Most 300 and 400 level FAH courses must be balloted. Balloting is the process by which students interested in taking

# PROGRAMS

courses are granted permission to enrol. Although these courses are open to all students, priority will be given to students in FAH. Ballot forms and detailed instructions are available in early March from the Fine Art Department, Room 227, North Building, UTM, phone (905) 828-3727.

4. All 300 and 400 level FAS courses require balloting. FAH students fulfilling their FAS requirements are given registration priority when they submit their ballots. See ballot information above.
5. Courses which have significant Art historical or Visual Culture/Theory content in other departments (such as CCIT, Philosophy, Drama, English, History, East Asian Studies, and Near and Middle Eastern Civilizations), may be substituted for up to 1.0 FAH/VCC credit only with permission, prior to enrolment, of the Discipline Representative. For a list of possible substitutes see the departmental web site or the Discipline Representative.
6. **RECOMMENDED LANGUAGE STUDY:** Students wishing to pursue graduate studies in Art History must acquire a basic reading knowledge of at least two of the following languages: German, French, and Italian. A minimum of 2.0 in one language, or 1.0 in two languages (total 2.0) is recommended. Applicants to graduate programs who lack such language skills are generally not admitted.
7. No more than a total of 13.0 FAH and FAS courses may be taken.

## Major Program ERMAJ0615

For a major program, 7.0 credits are required from offerings in FAH and VCC, distributed in four areas (see notes). For the list of VCC courses that satisfy requirements for the Art History Major, see the departmental web site or the Discipline Representative. FAH courses must include FAH105H, FAH201H, plus 2.5 others at the 200 level (see following), 2.5 at the 300/400 level, of which 0.5 must be at the 400 level. Please note that no St. George courses may be substituted for the required 100 or 200 level core courses. Students enrolled

before Fall 2003 should consult faculty advisors about completion of their program.

Majors in Art History are strongly urged to structure their studies as follows:

*First Year:* FAH105H; FAH201H; 1.0 FAH at the 200 level

*Second Year:* 1.5 FAH at the 200 level, 1.0 FAH at the 300 level, 0.5 Visual Culture and Critical Theory

*Third Year:* 1.5 FAH at the 300/400 level, 0.5 Visual Culture and Critical Theory

### Notes:

1. At minimum of 1.0 credit at any level must be taken in each of the following four areas: Ancient & Medieval; 15<sup>th</sup>-18<sup>th</sup> century; 19<sup>th</sup>-21<sup>st</sup> century; Visual Culture/Theory. It is highly recommended that students take at least one 300 or 400 level H course in at least three of the four areas. Some courses may satisfy more than one of the distribution requirements. See the departmental web site or the Discipline Representative for the distribution of courses by area.
2. Most 300 and 400 level FAH courses must be balloted. Balloting is the process by which students interested in taking courses are granted permission to enrol. Although these courses are open to all students, priority will be given to students in FAH. Ballot forms and detailed instructions are available March 1<sup>st</sup> from the Fine Art Department, Room 227, North Building, UTM, phone (905) 828-3727.
3. Courses with significant Art historical or Visual Culture/Theory content in other departments, such as CCIT, Philosophy, Drama, English, History, East Asian Studies, and Near and Middle Eastern Civilizations, may be substituted for up to 1.0 FAH/VCC credit only with permission, prior to enrolment, of the Discipline Representative. For a list of possible substitutes see the departmental web site or the Discipline Representative.
4. **RECOMMENDED LANGUAGE STUDY:** Students wishing to pursue graduate studies in Art History must acquire a basic reading knowledge of at

least two of the following languages: German, French, and Italian. A minimum of 2.0 in one language, or 1.0 in two languages (total 2.0) is recommended.

**Applicants to graduate programs who lack such language skills are generally not admitted.**

5. No more than 10.0 FAH and FAS courses may be taken, of which no more than a total of 8.0 may be FAH.

#### **Minor Program ERMIN0615**

4.0 credits in FAH and VCC are required, including FAH105H, 2.5 at the 200 level (FAH201H is required), and 1.0 at the 300/400 level. 200 level courses must be taken in all four areas (Ancient & Medieval; 15<sup>th</sup>-18<sup>th</sup> century; 19<sup>th</sup>-21<sup>st</sup> century; Visual Culture/Theory). See the departmental web site or the Discipline Representative for the distribution of courses by area. *Please note that no St. George courses may be substituted for the required 100 and 200 level core courses.*

Students enrolled before Fall 2003 should consult faculty advisors about completion of their program.

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#### **Astronomy (Science)**

##### **Major Program ERMAJ2204**

8.0 credits are required.

*First Year:* AST110H; MAT102H, 138Y/(MAT132Y, 232H), MAT222H; PHY135Y(70% recommended)/137Y/140Y

*Second Year:* AST221H(G), 222H(G); MAT212H, 368H; PHY241H, 245H

*Third Year:* AST320H(G); JCP321H; JCP322H/PHY345H

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#### **Astronomical Sciences (Science)**

##### **Specialist Program ERSPE1025**

Within an Honours degree, 13.5 credits are required.

*First Year:* AST110H; MAT102H, 138Y/(MAT132Y, 232H), MAT222H; PHY135Y(70% recommended)/137Y/140Y

*Second Year:* AST221H(G), 222H(G); MAT212H; 368H; PHY241H, 245H;

STA220H

*Third Year:* AST320H(G); JCP321H, 322H; MAT311H, 334H; PHY341H, 345H

*Fourth Year:* AST420H(G), 425H; PHY344H, 351H(G), 352H(G), 355H(G)

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#### **Biochemistry (Science)**

See Chemistry Programs

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#### **Biology Programs (Science)**

The Biology Department offers six programs:

- a. Biology (Specialist, Major, Minor)
- b. Biodiversity and Evolutionary Biology (Specialist)
- c. Biotechnology (Specialist)
- d. Comparative Physiology (Specialist)
- e. Ecology (Specialist)
- f. Molecular Biology (Specialist)

Effective biological training involves careful study of real organisms, both living and dead. Consequently, almost all BIO courses with laboratories involve students in one or more of the following activities with animals, plants, and/or microorganisms: collecting and preserving organisms from the field; dissecting or handling preserved or euthanized specimens (or properly anaesthetized living specimens); observing and making measurements on organisms maintained under laboratory conditions approved by the Canadian Council of Animal Care. Completion of Specialist or Major programs in Biology will require students to participate in many such activities. Therefore, students who have objections to such activities should not attempt to major or specialize in Biology at UTM. Students in non-Biology programs who wish to take a Biology course with minimal direct contact with organisms should consult the Biology advisor.

In obtaining organisms for study in our courses and in studying outdoor natural areas, the Biology Group takes measures to avoid any impacts on threatened organismal groups or rare habitats, and to limit below sustainable levels the impacts of our collecting and measuring on local animal and plant populations.

Students without pre-and co-requisites or written permission of the instructor can be de-registered from courses at any time.

# PROGRAMS

## Biology (Science)

### Specialist Program ERSPE2364

Within an Honours degree, 13.0 credits are required, including at least 5.0 at the 300/400 level, of which 1.0 must be at the 400 level.

**Limited Enrolment**—Enrolment in this program is limited to students who have completed 4.0 courses, including 1.0 full credit in Biology with 60% or better, and who have achieved a cumulative GPA of at least 1.85. The actual GPA requirement in any particular year may exceed this value, in order to achieve a proper balance between enrolments and teaching resources. The Faculty Advisor may make alternative arrangements for admission to the Specialist Program in special circumstances. Students who have not attained the standard required to enter the Specialist Program may enrol in the Major or Minor Programs. If their GPA rises to 1.85, and they have completed CHM140Y, BIO151Y/(152H, 153H), 204H, 205H, 206H, 207H and 215H, they will then be eligible to switch to the Specialist Program, with written permission from the Faculty Advisor.

#### First Year:

1. BIO151Y/(152H, 153H); CHM140Y; MAT132Y/138Y/(CSC108H, 148H)
2. 1.0 from the following: CLA201H; ENV100Y; ERS120H; PHY135Y/137Y/140Y; PSY100Y; WRI203H, 307H

**Second Year:** BIO204H, 205H, 206H, 207H, 215H

**Note:** BIO151Y/(152H, 153H) are prerequisites for most 300 level BIO courses and should be completed by the end of second year.

**Third and Fourth Years:** BIO360H, 6.0 additional BIO credits. At least 5.0 of these courses must be at the 300 level or above, of which at least 1.0 must be at the 400 level.

It is recommended that students in the specialist program include at least 0.5 credit from each of four of the following groups:

**Ecology and Field Biology:** BIO301H, 316H, 330H, 332Y\*, 337H\*, 405H\*, 418H\*, 464H; ENV317H\*, PHY335H

**Biology of Whole Organisms:** BIO319H, 325H, 334H, 335H, 338H, 354H, 356H.

**Genetics and Evolution:** BIO341H, 407H, 442H, 443H\*, 464H, 475H

**Cell, Molecular and Developmental Biology:** BIO315H, 353H, 370Y, 380H, 452H\*, 475H, 477H/478H, JBC372H

**Physiology and Behaviour:** BIO210H, 304H, 310H, 312H, 318Y, 328H, 410H, 418H\*, 422H, 434H; PHY335H

Additional courses: BIO361H, 481Y

\* Offered in alternate years

#### Notes:

1. Students wishing to emphasize cell biology, molecular biology, microbiology, physiology or genetics, should take CHM240Y/(241H, 261H)/(242H, 243H) in second year. Such students should take MAT132Y/138Y, a prerequisite, in their first year.
2. CHM240Y/(241H, 261H)/(242H, 243H), 361H, 362H; JBC372H, and PHY335H will automatically be accepted as equivalent to BIO course options in the Specialist program.
3. No substitute statistics course will be allowed for BIO360H, except under extenuating circumstances.
4. Certain UTM Biology courses will be treated as equivalent to corresponding St. George campus courses in satisfying requirements for certain St. George specialist programs related to Biology and Basic Medical Sciences. Students who intend to begin these programs at UTM should consult a Biology advisor as early as possible.
5. Students intending to enrol in third year Zoology courses at St. George Campus should consider taking BIO204H and 210H to fulfill a full year 200 level Physiology course requirement.

### Major Program ERMAJ2364

7.0 credits are required including at least 2.0 at the 300/400 level.

1. CHM140Y; MAT132Y/138Y/(CSC108H, 148H)
2. BIO151Y/(152H, 153H), 204H, 205H, 206H, 207H
3. 2.0 in Biology from the 300 or 400 level.

**Notes:**

1. No courses outside Biology are allowed as substitutions for the 2.0 required 300/400 level courses.
2. Although BIO215H is not required for a Biology Major, it is a prerequisite for many cell and molecular courses at the 300 level. Students should consider carefully which 300/400 level courses they intend to take.
3. PSL201Y(G) will not meet the Physiology requirements for the Biology Major program and may not be substituted for BIO204H.
4. Students intending to apply to professional schools are recommended to include 1.0 credit of Statistics, which may be counted towards a Biology major. BIO360H and BIO361H are recommended choices.

**Minor Program ERMIN2364**

4.0 credits are required, including 1.0 at the 200 level, and at least 1.0 at the 300 level.

1. BIO151Y/(152H, 153H)
2. 1.0 from BIO204H, 205H, 206H, 207H
3. 2.0 additional Biology courses, at least 1.0 at the 300/400 level.

**Note:** Three of the four courses in requirement 2. (above) require CHM140Y as a pre- or corequisite.

**Biodiversity and Evolutionary Biology (Science)****Specialist Program ERSPE0110**

Within an Honours degree, 13.5 credits are required, including at least 5.0 at 300/400 level, of which 1.0 must be at the 400 level.

**Limited Enrolment**—Enrolment in this program is limited to students who have completed 4.0 courses, including BIO151Y/(152H, 153H) with an average grade of 70%, and a cumulative grade point average of 2.50.

**First Year:**

1. BIO151Y/(152H, 153H); CHM140Y; MAT132Y/138Y/(CSC108H, 148H)
2. 1.0 credit from the following:  
CLA201H; ENV100Y; ERS120H;  
PHY135Y/137Y/140Y; PSY100Y;  
WRI203H, 307H

**Second Year:** BIO204H, 205H, 206H, 207H, 215H

**Note:** BIO151Y/(152H, 153H) are prerequisites for most 300 level BIO courses and should be completed by the end of second year.

**Third and Fourth Years:**

1. BIO360H
2. 3.0 credits from: BIO319H, 325H, 334H/338H, 335H, 354H, 356H, 370Y
3. 1.5 credits from: BIO341H, 442H, 443H\*, 464H
4. 1.0 credit from: BIO301H/316H, 330H, 332Y\*, 353H, 361H; ENV317H\*; GGR305H; JBC372H or from courses listed in #2 and #3
5. BIO481Y

\* Offered in alternate years.

**Biotechnology (Science)****Program Advisors:**

Professor Barry Saville (Biology)  
Rm. 3048, South Bldg., (905)569-4702  
[bsaville@utm.utoronto.ca](mailto:bsaville@utm.utoronto.ca)

Professor Scott Prosser (Chemistry)  
Rm. 4052, South Bldg., (905) 828-3802  
[sprosser@utm.utoronto.ca](mailto:sprosser@utm.utoronto.ca)

Biotechnology has been practised by human society since the beginning of recorded history in such activities as baking bread, brewing alcoholic beverages, or breeding food crops or domestic animals. In modern society, biotechnology is the application of scientific knowledge associated with molecular biology, genomes and proteins for the enhancement or protection of organisms. The Biotechnology industry hopes to enhance the future potential of biotechnology with respect to drugs, agriculture, forest, and environmental products. This specialist program in Biotechnology offers students a firm grounding in the science of biotechnology and a thorough understanding of the industry, and its social and ethical implications in a global framework. Faculty are drawn from the Biology Group and Chemistry with cooperation from the Faculty of Management.

# PROGRAMS

## Specialist Program ERSPE1118

Within an Honours degree, 15.0 credits are required, including at least 6.0 at the 300/400 level, of which 2.0 must be at the 400 level.

**Limited Enrolment**—Enrolment in this program is limited. Students wishing to enrol at the end of the first year (4.0 credits) must obtain a cumulative grade point average of at least 2.50 to qualify.

**First Year:** BIO152H, 153H; CHM140Y; MAT132Y; PHY135Y

**Second Year:** BIO204H, 206H, 207H, 215H; CHM211H, 242H, 243H; IDR201H(G)

**Third and Fourth Years:**

1. BIO360H, 370Y; JBC372H; CHM311H, 361H; MGM101H, 102H; BIO475H; JBC472H
2. 1.0 credit from: BIO304H, 310H, 312H, 315H, 341H, 380H (note: BIO315H is co-prerequisite for this course); CHM333H (note: BIO231H is prerequisite for this course), CHM341H, 345H, 347H, 362H, 371H
3. 1.0 credit from CHM/BIO courses at the 400 level.

It is recommended that students in this program consider taking a research project courses in either Biology (BIO481Y) or Chemistry (CHM489Y). Other 4<sup>th</sup> year courses directly relevant to this program are BIO478H, CHM414H and CHM462H.

## Comparative Physiology (Science)

### Specialist Program ERSPE0482

Within an Honours degree, 13.5 credits are required, including at least 5.0 at the 300/400 level, of which 1.0 must be at the 400 level.

**Limited Enrolment**—Enrolment in this program is limited. Students wishing to enrol at the end of the first year (4.0 credits) must obtain a grade of at least 65% in CHM140Y and a cumulative grade point average of at least 2.50 to qualify. Students enrolling after completing 8.0 credits must have achieved a grade of at least 70% in BIO204H and a cumulative grade point average of at least 2.50.

**First Year:**

1. BIO151Y/(152H, 153H); CHM140Y; MAT132Y/138Y
2. 1.0 credit from the following: CLA201H; CSC108H, 148H; ENV100Y; ERS120H; PHY135Y/137Y/140Y, PSY100Y; WRI203H, 307H

**Second Year:** BIO204H, 205H, 206H, 207H, 210H, 215H

**Note:** BIO151Y/(152H, 153H) are prerequisites for most 300 level BIO courses and should be completed by the end of second year.

**Third and Fourth Years:**

1. BIO304H, 310H, 312H, 360H; CHM240Y/(241H, 261H)/(242H, 243H)
2. At least 2.0 credits from: BIO354H, 361H, 410H, 434H, 481Y; CHM361H, 362H; JBC372H; PHY335H; PSY290H, 395H
3. 1.5 additional BIO courses

## Ecology (Science)

### Specialist Program ERSPE1082

Within an Honours degree, 13.5 credits are required, including at least 5.0 at the 300/400 level, of which 1.0 must be at the 400 level.

**Limited Enrolment**—Enrolment in this program is limited. Students wishing to enrol at the end of first year (4.0) credits must obtain a grade of at least 65% in BIO153H and a cumulative grade point average of at least 2.50 to qualify. Students enrolling after completing 8.0 credits must have achieved a grade of at least 70% in BIO205H and a cumulative grade point average of at least 2.50.

*First Year:*

1. BIO151Y/(152H, 153H); CHM140Y; MAT132Y/138Y
2. 1.0 credit from the following:  
CLA201H; CSC108H, 148H;  
ENV100Y; ERS120H;  
PHY135Y/137Y/140Y; PSY100Y;  
WRI203H, 307H

*Second Year:* BIO204H, 205H, 206H, 207H

**Note:** BIO151Y/(152H,153H) are prerequisites for most 300 level BIO courses and should be completed by the end of second year.

*Third and Fourth Years:*

1. BIO360H, 361H
2. 1.0 credit from: MAT212H, 222H, 232H; STA301H, 302H, 322H; GGR261H (requires ENV100Y)
3. 0.5 credit from: BIO301H, 316H, other U. of T. Field Courses (P.I.)
4. 1.0 credit from: BIO319H, 325H, 334H/338H, 335H, 354H, 356H
5. 1.0 credit from: BIO318Y, 341H, 422H, 442H, 443H\*
6. 0.5 credit from: BIO215H, 310H, 312H, 410H, 434H; PHY335H
7. 1.5 credit from: BIO330H, 332Y\*/337H\*, 405H\*, 418H\*, 464H; ENV317H\*
8. BIO481Y

\*Offered in alternate years.

## Molecular Biology (Science)

### Faculty Advisors:

- Professor J.T. Westwood (Biology)  
Rm. 3034, South Bldg., (905) 828-3894  
Professor P.A. Horgen (Biology)  
Rm. 3033, South Bldg., (905) 828-5424  
J.C. Poë (Chemistry)  
Rm. 4048, South Bldg., (905) 828-3803  
jpoe@utm.utoronto.ca

Molecular Biology is an interdisciplinary science that draws its major themes from biochemistry, cell biology and genetics. It is distinctive in its emphasis on the structure, chemistry and functions of nucleic acids and in that sense focuses on the biochemical basis of cellular genetics. Molecular Biology is also the cornerstone of contemporary biotechnology and provides some of the

most successful experimental tools in medicine and agriculture.

The Specialist Program reflects the interdisciplinary nature of the field by providing a rigorous background of core courses up to the end of the third year covering chemistry, biochemistry, cell biology and genetics. These courses are offered by the Biology and Chemistry Departments at UTM. The program in the fourth year is largely open-ended providing flexibility for the student to design a course outline that fits his/her areas of interest.

### Specialist Program ERSPE1237

Within an Honours degree, 13.0\* credits are required. (\*12.5 credits are required if BIO202H was taken).

**Limited Enrolment**—Enrolment in this program is limited. Students wishing to enrol at the end of first year (4.0 credits) must obtain a grade of at least 65% in CHM140Y and a cumulative grade point average of at least 2.50 to qualify. Students enrolling after completing 8.0 credits must have achieved a grade of at least 70% in BIO206H and a cumulative grade point average of at least 2.50.

*First Year:* CHM140Y; MAT132Y/138Y; PHY135Y/137Y

*Second Year:* BIO206H, 207H, 215H; CHM211H, 240Y/(241H, 261H)/(242H, 243H); PHY335H/CHM221H; STA220H/BIO360H

*Third Year:* BIO315H, 370Y; CHM347H, 361H, 362H, 371H; JBC372H

*Fourth Year:* BIO475H, 477H/478H\*\* plus 1.0 of: BIO341H, 452H, 481Y; BCM421H(G), 422H(G), 430H(G), 440H(G); CHM489Y; MBY428H(G), 445H(G), 480H(G); MGB451H(G), 452H(G), 460H(G), 470H(G)

\*\*In the event that BIO478H is not offered during the 4th year of a student's studies, students must take BIO475H plus 1.5 credits from the list above. In such a year, BIO472H(G)/BCH441H(G)/MGB420H(G) may be taken as 0.5 of the optional credit.

# PROGRAMS

## Notes:

1. Students wishing to enrol in this program are asked to see one of the Faculty Advisors in their first year.
2. BIO206H can be taken in the first year of studies provided special permission is obtained from one of the Faculty Advisors.
3. Students intending to continue into Graduate Studies should consider including a course in independent research in Year 4.

of approved courses offered on either the UTM or the St. George Campuses.

## Major Program ERMAJ0728

7.0 credits are required.

HIS262Y; POL100Y; ENG252Y; FSL205H, 206H (or, if exemption is granted, a course in French Canadian Literature in the original language); GGR228Y; and 2.0 courses chosen from those approved for the Specialist program, both of which must be at the 300/400 level.

For course descriptions of ERI401Y and ERI402Y, see under "Erindale" courses.

## Canadian Studies (Arts)

### Faculty Advisor:

Professor M.J. Levene  
(905) 828-5262

"The most valid and compelling argument for Canadian Studies is the importance of self-knowledge, the need to know and to understand ourselves."

The Canadian Studies Program at UTM offers both a Specialist and a Major concentration drawn from courses in Anthropology, Commerce, Economics, English, Fine Art, French, Geography, History, Philosophy, Political Science, Religious Studies, and Sociology.

Interdisciplinary in nature, the program is nonetheless designed so that students can fulfill entrance requirements of the Faculty of Education or the School of Graduate Studies by a careful selection of courses in other areas. Students wishing to complete a Specialist or Major certification in Canadian Studies must notify and register with the Faculty Advisor.

### Specialist Program ERSPE0728

Within an Honours degree, 11.0 credits are required.

*First and Second Years:* HIS262Y; POL100Y; ENG252Y; FSL205H, 206H (or, if exemption is granted, a course in French Canadian literature in the original language).

*Third and Fourth Years:* GGR228Y; ERI401Y, 402Y; and 4.0 courses (at least 2.0 of which must be at the 300/400 level) with a disciplinary, thematic or chronological coherence chosen, with the approval of the advisor of the Program, from the list

## Chemistry Programs (Science)

The Chemistry Department offers the following programs:

- a. Biochemistry (last offered in 2001-2002)  
Students already enrolled in this program should consult the Department advisor for information.
  - b. Biological Chemistry
  - c. Chemistry
  - d. Chemistry and Biochemistry (last offered in 2001-2002)  
Students already enrolled in this program should consult the Department advisor for information.
- e. Forensic Science-Chemistry (see Forensic Science Programs for description)

## Biological Chemistry (Science)

### Program Advisor:

J.C. Poë  
(905) 828-3803  
[jpoë@utm.utoronto.ca](mailto:jpoë@utm.utoronto.ca)

### Specialist Program ERSPE1995

Within an Honours degree, 13.5 credits are required.

### Limited Enrolment

Enrolment in this Program is restricted and selection will be based on completion of 4.0 credits including CHM140Y(minimum grade of 65%); MAT132Y/138Y; one BIO half-course is recommended; and a minimum GPA of 2.50 (or by Departmental permission).

*First Year:* BIO152H; CHM140Y;  
MAT132Y/138Y; PHY135Y/137Y

*Higher Years:*

1. CHM211H, 221H, 231H, 240Y/(241H, 261H)/(242H, 243H); BIO206H, 207H, 215H; 0.5 MAT/CSC/STA credit
2. CHM333H, 341H, 347H, 361H, 362H, 371H; JBC372H
3. CHM489Y; 1.0 400 level CHM or BCH course(s)

*Notes:*

1. Enrolment in CHM371H and certain BCH courses is limited.
2. Additional 300/400 level CHM courses include CHM311H, 331H, 345H, 391H, 393H, 414H, 422H, 442H, 461H, 462H, 485H and JCP321H, 322H at UTM plus the 300/400 level CHM/BCH courses at St. George.
3. Students are strongly advised to consult the Program Advisor regarding their course of study.

## Chemistry (Science)

*Program Advisor:*

J.C. Poë  
(905) 828-3803  
jpoe@utm.utoronto.ca

**Specialist Program ERSPE1376**

Within an Honours degree, 13.0 credits are required. This program is accredited by the Canadian Society for Chemistry.

**Limited Enrolment**—Enrolment in the Chemistry Specialist Program is based on completion of 4.0 credits including CHM140Y(minimum grade of 65%) and MAT132Y/138Y.

Courses required for students enrolling in Chemistry Specialist, effective Fall 2002:

*First Year:* CHM140Y; MAT132Y/138Y; PHY135Y/137Y

*Higher Years:*

1. CHM211H, 221H, 231H, 240Y/(241H, 261H)/(242H, 243H); MAT212H/232H
2. CHM311H, 331H, 341H/345H, 361H, 391H, 393H; JCP321H
3. CHM489Y; 1.5 400 level CHM courses, 1.0 300/400 level CHM or other science course(s).

*Notes:*

1. Chemistry course offerings have changed. Students previously enrolled in the Chemistry specialist program should consult the Program Advisor regarding completion of their program.
2. 400 level CHM courses available include CHM414H, 422H, 442H, 461H, 462H, 485H and 489Y at UTM, plus the selection of CHM400 level courses at St. George.
3. Additional 300 level CHM courses available include CHM333H, 347H, 362H; JCP322H
4. Students are strongly advised to consult the Program Advisor regarding the program of study.
5. MAT132Y/138Y prerequisite is required for most 200 level CHM courses.

**Major Program ERMAJ1376**

8.0 credits are required.

**Limited Enrolment**—Enrolment in the Chemistry Major Program is based on completion of 4.0 credits including CHM140Y and MAT132Y/138Y.

*First Year:* CHM140Y; MAT132Y/138Y

*Higher Years:*

1. CHM211H, 221H, 231H, 240Y/(241H, 261H)/(242H, 243H), 371H/391H/393H
2. 3.0 additional 300/400 level CHM/JCP credits.

*Notes:*

1. MAT132Y/138Y prerequisite is required for most 200 level CHM courses.
2. For a balanced training in Chemistry, students should take CHM311H, 331H/333H, 341H/345H, JCP321H.

**Minor Program ERMIN1376**

4.0 CHM/JCP credits are required.

**Limited Enrolment**—Enrolment in the Chemistry Minor Program is based on completion of 4.0 credits including CHM140Y and MAT132Y/138Y

*First Year:* CHM140Y

*Higher Years:* 3.0 CHM/JCP credits, at least 1.0 of which must be at the 300/400 level.

*Note:* MAT132Y/138Y prerequisite is required for most 200 level CHM courses.

# PROGRAMS

## Cinema Studies (Arts)

### *Program Coordinator:*

Professor Stefan Soldovieri  
(German)  
(905) 828-5284

The program treats film primarily as a unique and powerful twentieth century art form with its own traditions, history, conventions and techniques. Understanding film, its properties, methods and aesthetics, its impact on culture and society, is the basis of the program.

### **Minor Program ERMIN0382**

4.0 credits are required, including at least 1.0 credit at the 300 level.

*First Year:* CLA160Y, 202H

*Higher Years:* 3.0 credits from the following: DRE350H/352H; FRE395H; GER351H, 352H; ITA242Y/243Y, 306H/307H, 342Y/343Y

### *Note:*

No more than 2.0 credits may be taken within one Department.

## Classical Civilization (Arts)

Consult Department of Classics

The program is designed to meet the needs both of students seeking a broad survey of Greek and Roman culture and of specialists in other Humanities subjects who require background knowledge of Classics for their particular interests, whether literary, historical or philosophical.

### **Major Program ERMAJ0382**

6.0 credits are required.

*First Year:* CLA160Y

*Higher Years:* 5.0 additional CLA courses at the 200+ level, including 2.0 at the 300/400 level.

### *Note:*

Up to 3.0 courses in ancient Art (e.g., FAH101Y/203H/204H/256H/258H) or ancient Philosophy (e.g., PHL200Y/300H) may be substituted for CLA courses.

### **Minor Program ERMIN0382**

4.0 credits are required.

*First Year:* CLA160Y

*Higher Years:* 3.0 CLA courses at the 200+ level, including 1.0 at the 300/400 level.

### *Note:*

Up to 2.0 courses in ancient Art (e.g., FAH101Y/203H/204H/256H/258H) or ancient Philosophy (e.g., PHL200Y/300H) may be substituted for CLA courses. DRE344H or 346H may be substituted when those courses are taught as ancient drama.

## Commerce (B.Com.)

### **Specialist Program (B.Com.) ERSPE2273** Commerce and Finance

This program leads to the Bachelor of Commerce degree and requires a total of 14.0 to 15.0 credits out of a total of 20.0 credits. See page 41 for the Degree requirements.

**Limited Enrolment**—All students admitted into the 1<sup>st</sup> year Commerce category will be guaranteed a place in the Commerce Program (B.Com.) after 1<sup>st</sup> year, provided they complete MGT120H (63%); ECO100Y (63%); MAT133Y (or equivalent) on their first attempt. Students must complete a total of 4.0 credits and obtain at least a 2.0 cumulative grade point average. There will be a limited number of spaces available for which students without a commerce guarantee can apply after completion of 4.0 credits, including prerequisites listed, and achievement of a CGPA to be determined annually by the Department.

**Application** for admission to the program for non-guarantee students is normally made in April. Contact Management Department for dates.

**Note:** Once a student has been admitted to a Commerce program on either the St. George or UTM campus, they are ineligible to transfer to, or apply for, admission to the Commerce program on the other campus.

**Tuition fees for students enrolled in the Commerce programs are higher than for other Arts and Science programs.**

**Note: RE - Transfer Students**

Students who have attended another post-secondary institution, or another Faculty within the University of Toronto (including U. of T. at Scarborough) and who wish to enter Commerce, must apply through the Office of Admissions and Awards.

1. Transfer credit requirements  
MGT120H, ECO100Y C+ (67%)  
MAT132Y/133Y PASS
2. Have obtained at least 4.0 transfer credits on admission to the Faculty.
3. Minimum overall average on admission:  
B+ (77%)

**Enrolment in 200+ level MGT courses is restricted to students enrolled in the Commerce Programs and to non-degree students (if space is available).**

1. *First year* (3.0 credits):  
MGM101H; MGT120H; ECO100Y;  
MAT133Y/132Y (or equivalent)
2. *Higher Years*  
Management (5.0 credits):  
a) MGT223H, 220H, 337Y  
b) 1.0 credit from: MGT252H, 262H,  
353H, 363H, 371H, 374H, 393H  
c) 1.0 credit in MGT at 400 level  
d) 1.0 credit in MGT at 200/300/400  
level  
Economics (5.0 credits):  
a) ECO200Y/206Y, 202Y/208Y  
b) ECO220Y/227Y/STA(250H,  
255H(G))/STA(257H, 261H)  
c) 2.0 credits in ECO at 300/400 level,  
no more than 1.0 of which may be a  
course in Economic History
3. *Writing Requirements* (2.0 credits):  
ANT100Y/102H, 204Y; CLA (except  
201H); one of (ECO303Y/321Y/  
322Y/323Y/373Y); ENG; FAH; HIS;  
HPS(G); LIN; PHL (except 245H, 246H,  
247H, 344H, 345H, 346H, 347H); POL;  
RLG; SOC (excluding SOC300Y); WRI

**Notes:**

1. The Program requirements in effect at the time the student is admitted to the program must be met in order to fulfill the Degree requirements.
2. No more than 15.0 credits from COM(G), MGD, MGM, MGT and ECO, combined, for degree credit.
3. Students enrolled in a Commerce Program must complete MGM101H by the end of their 2<sup>nd</sup> year. Commerce students will not be admitted to 3<sup>rd</sup> year MGT courses until such time as they have completed MGM101H.
4. STA250H, 255H, 257H, 261H are counted as ECO courses.
5. Students interested in combining a B.Com. degree with an Economics Specialist Program should refer to the appropriate Program of Study for details.
6. Students are encouraged to take one course towards the Distribution Requirement (see page 41) in First Year.

## Commerce (Arts)

### Major Program ERMAJ1111

Students taking this program follow the degree requirements for the B.A. or Hon. B.A. degree (see page 42).

7.5 credits are required.

**Limited Enrolment**—All students admitted into the 1<sup>st</sup> year Commerce category will be guaranteed a place in the Commerce Program (B.A.) after 1<sup>st</sup> year, provided they complete MGT120H (63%); ECO100Y (63%); MAT133Y or equivalent on their first attempt. Students must complete a total of 4.0 credits and obtain at least a 2.0 cumulative grade point average. There will be a limited number of spaces available for which students without a commerce guarantee can apply after completion of 4.0 credits, including prerequisites listed, and achievement of a CGPA to be determined annually by the Department.

**Application** for admission to the program for non-guarantee students is normally made in April. Contact Management Department for dates.

# PROGRAMS

**Note:** Once a student has been admitted to a Commerce program on either the St. George or UTM campus, they are ineligible to transfer to, or apply for, admission to the Commerce program on the other campus.

**Tuition fees for students enrolled in the Commerce programs are higher than for other Arts and Science students.**

**Note: RE - Transfer Students**

Students who have attended another post-secondary institution, or another Faculty within the University of Toronto (including U. of T. at Scarborough), and who wish to enter Commerce, must apply through the Office of Admissions and Awards.

1. Transfer credit requirements  
MGT120H, ECO100Y C+ (67%)  
MAT132Y/133Y PASS
2. Have obtained at least 4.0 transfer credits on admission to the Faculty.
3. Minimum overall average on admission: B+ (77%)

**Enrolment in 200+ level MGT courses is restricted to students enrolled in the Commerce Programs and to non-degree students (if space is available).**

1. *First Year:* MGM101H; MGT120H; ECO100Y; MAT133Y/132Y or equivalent
2. *Higher Years:*
  - a) ECO220Y/227Y/STA(250H, 255H(G))/STA(257H, 261H)
  - b) MGT223H, 220H, 252H, 331Y(G)/337Y
  - c) 1.0 credit from MGT330H, 363H, 371H, 374H, 393H, or any 400 level MGT course.

**Note:**

The Program requirements in effect at the time the student is admitted to the program must be met in order to fulfill the Degree requirements.

## Communication, Culture and Information Technology

CCIT offers four programs:

- a. Digital Enterprise Management (Specialist)

- b. Human Communication and Technology (Specialist)
- c. Visual Culture and Communication (Specialist)
- d. Communication, Culture and Information Technology (Major, must be taken with a second major)

## Digital Enterprise Management (Arts)

**Program Advisors:**

Dr. Anthony Wensley (Management)  
(905) 828-5318  
wensley@rotman.utoronto.ca  
Dr. William F. Thompson (CCIT)  
(905) 569-4732  
b.thompson@utoronto.ca

### Specialist Program ERSPE1307

Within an Honours degree, 14.5 credits are required, including at least 1.0 credit at the 400 level.

**Limited Enrolment**—Enrolment in this program is highly competitive and will be limited as follows (meeting the minimum requirements does not guarantee admission):

1. Minimum 4.0 credits to include the following: CCT100H, 101H; MGM101H, 102H
2. Minimum Cumulative Grade Point Average (CGPA) determined annually
3. Minimum 63% in both MGM101H and MGM102H
4. Minimum 65% average between CCT100H and CCT101H, with at least 60% in each course.

**Tuition fees for students enrolling in any CCIT Specialist/Major programs will be higher than for other Arts and Science programs.**

*First Year:* CCT100H, 101H; MGM101H, 102H

*Second Year:* CCT206H, 210H, 224H; WRI203H

*Second and Higher Years:* 5.0 credits from CCT200H, 204H, 205H, 260H, 300H, 305H, 333H, 352H, 353H, 357H, 370H, 410H

*Third and Higher Years:*

1. CCT319H, 321H, 322H, 324H, 325H, 345H, 355H, 424H
2. 1.5 credits from CCT316H, 360H; MGD327H, 328H, 415H, 420H, 421H, 422H, 423H, 425H, 426H; VCC412H

*Note:*

It is intended that students take CCT224H, CCT324H and CCT424H in strict sequence.

**Human Communication and Technology (Science)***Program Advisors:*

Dr. Kathy Pichora-Fuller (Psychology)  
(905) 828-3865

[kpfuller@utm.utoronto.ca](mailto:kpfuller@utm.utoronto.ca)

Dr. William F. Thompson (CCIT)  
(905) 569-4732  
[b.thompson@utoronto.ca](mailto:b.thompson@utoronto.ca)

**Specialist Program ERSPE1230**

Within an Honours degree, 13.0 credits are required.

**Limited Enrolment**—Enrolment in this program is highly competitive and will be limited as follows (meeting the minimum requirements does not guarantee admission):

1. OAC Mathematics or Gr.12(4U) Mathematics or by permission
2. Minimum of 4.0 credits to include CCT100H, 101H; PSY100Y
3. Minimum Cumulative Grade Point Average (CGPA) determined annually. It is generally between 2.7 and 3.0 and never lower than 2.2
4. Minimum 65% average between CCT100H and CCT101H, with at least 60% in each course.

**Tuition fees for students enrolling in any CCIT Specialist/Major programs will be higher than for other Arts and Science programs.**

*First Year:* CCT100H, 101H; PSY100Y

*Second Year:*

1. PSY201H, 202H
2. CCT202H, 210H (Courses taught at UTM)
3. CCT200H, 205H (Courses taught at Sheridan)
4. WRI203H

*Second and Higher Years:*

1. CCT370H, 383H, 384H (Courses taught at Sheridan)
2. CCT400H and 0.5 credit from CCT405H, 411H
3. 2.0 credits from CCT307H, 316H, 326H, 371H, 379H; PSY315H, 374H, 385H (Courses taught at UTM)
4. 3.0 credits from CCT204H, 260H, 300H, 305H, 333H, 353H, 357H (Courses taught at Sheridan)

**Visual Culture and Communication (Arts)***Program Advisors:*

Dr. Louis Kaplan (Fine Art History)  
(905) 828-3750

[elevy@utm.utoronto.ca](mailto:elevy@utm.utoronto.ca)

Dr. William F. Thompson (CCIT)  
(905) 569-4732  
[b.thompson@utoronto.ca](mailto:b.thompson@utoronto.ca)

**Specialist Program ERSPE1200**

Within an Honours degree, 12.5 credits are required, including at least 1.0 credit at the 400 level.

**Limited Enrolment**—Enrolment in this program is highly competitive and will be limited as follows (meeting the minimum requirements does not guarantee admission):

1. Minimum of 4.0 credits to include CCT100H, 101H; FAH105H
2. Minimum Cumulative Grade Point Average (CGPA) determined annually. It is generally between 2.7 and 3.0 and never lower than 2.2
3. Minimum 65% average between CCT100H and CCT101H, with at least 60% in each course.

**Tuition fees for students enrolling in any CCIT Specialist/Major programs will be higher than for other Arts and Science programs.**

*First Year:* CCT100H, 101H; FAH105H

*Second Year:*

1. CCT201H/FAH201H, CCT206H, 210H; WRI203H
2. CCT200H, 204H, 205H, 260H

# PROGRAMS

## Third and Fourth Years:

1. 3.5 credits from CCT310H; ERI201H; FAH388H, 391H; GER351H, 352H; VCC302H, 304H, 306H, 400H, 403H 405H, 411H, 412, 415H, 425; any other 0.5 credit in FAH at the 300/400 level offered at UTM (or St. George, with permission)
2. 3.5 credits from CCT300H, 305H, 351H, 352H, 353H, 357H, 370H, 410H; with permission 1.0 credit from FAS246Y, 332Y, 346Y, 347Y (*Note:* there are prerequisites at the 100 level for all 200 level courses in FAS.)

## Communication, Culture and Information Technology (Arts)

### Major Program ERMAJ1034

Within an Honours degree, 8.0 credits are required. Program must be taken with a second Major.

**Limited Enrolment**—Enrolment in this program is limited as follows (meeting the minimum requirements does not guarantee admission):

1. Prerequisite Courses: minimum of 4.0 credits to include CCT100H, 101H
2. Minimum Cumulative Grade Point Average (CGPA) determined annually. It is never lower than 2.2.
3. Minimum 65% average between CCT100H and CCT101H with at least 60% in either course.

**Tuition fees for students enrolling in any CCIT Specialist/Major programs will be higher than for other Arts and Science programs.**

*First Year:* CCT100H, 101H

*Second and Higher Years:* (5.0 credits required)

1. CCT201H, 202H, 206H, 210H; WRI203H (Courses taught at UTM)
2. CCT200H, 204H, 205H, 260H, 300H (Courses taught at Sheridan)

*Third and Higher Years:* (2.0 credits)

1. 1.0 credit from: CCT307H, 316H, 326H, 371H, 379H, 390H; VCC302H, 304H, 306H, 403H, 411H, 412H, 415H, 425H (Courses taught at UTM)

2. 1.0 credit from: CCT305H, 333H, 353H, 357H, 370H (Courses taught at Sheridan)

## Comparative Physiology

See Biology Programs, Comparative Physiology.

## Computer Science: Comprehensive Option (Science)

### Specialist Program ERSPE1688

Within an Honours degree, 14.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited to students who meet the following criteria:

1. **Prerequisite courses**  
A minimum of 4.0 credits to include CSC148H(65%); MAT102H(60%), 138Y(60%)
2. **Cumulative Grade Point Average (CGPA)**  
The minimum CGPA is determined annually. It is never lower than 2.0.  
**Tuition fees for students enrolling in any Computer Science Specialist/Major programs from 2001 onwards will be higher than for other Arts and Science programs.**

*First Year:* CSC108H, 148H; MAT102H, 138Y; STA107H; 1.0 credit writing requirement (see Note 1. below)

*Second Year:* CSC207H/270H, 209H, 236H/238H, 258H, 263H; MAT248Y, 258Y; STA257H

*Third Year:* CSC324H, 343H, 350H, 363H/364H, 373H; MAT301H(G)/302H(G)/315H/334H/344H/368H

*Third or Fourth Year:*

1. CSC351H(G)
2. One of CSC 438H(G)/448H(G)/465H(G)/MAT443H(G)
3. 0.5 credit from Group A, and 0.5 credit from either Group A or B.

### Group A:

- CSC401H(G), 407H(G), 408H(G), 411H(G), 418H(G), 420H(G), 428H(G), 434H(G)/443H(G), 458H(G), 468H(G), 485H(G), 486H(G), 487H(G), 488H(G)/ECE489H(G)

Group B:  
 CSC309H, 318H, 320H, 321H,  
 340H, 354H, 369H, 372H(G),  
 384H(G), 446H(G), 454H(G),  
 456H(G), 457H(G); ECE385H(G)

**Notes:****1. Writing Requirement:**

Students in *all three of the Computer Science Options* are required to include a writing requirement in their program, to be chosen from the following list.

ANT	200Y, 204Y
CLA	160Y, any 200 or 300 level except 201H
CSC	300H
ENG	any 100 or 200 level <b>except</b> 269Y
ERI	100H
GER	235Y, 251Y, 351Y
HIS	any 100 or 200 level
ITA	242Y, 342Y
PHL	100Y, 101Y, 102Y, any 200 or 300 level except 245H, 246H, 247H, 344H, 345H, 346H, 347H, 349H, 351H, 356H
POL	100Y, any 200 level <b>except</b> 242Y
RLG	100Y, any 200 level
WRI	203H, 205H, 301H, 303H, 307H

**2. Students are advised to arrange their program so as to complete the requirement for the Major in Computer Science by the end of the third year.****Major Program ERMAJ1688**

8.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited to students who meet the following criteria:

**1. Prerequisite courses**

A minimum of 4.0 courses to include CSC148H(65%); MAT102H(60%), 138Y(60%)

**2. Cumulative Grade Point Average (CGPA)**

The minimum CGPA is determined annually. It is never lower than 2.0.

Tuition fees for students enrolling in any Computer Science Specialist/Major programs from 2001 onwards are higher than for other Arts and Science programs.

**First Year:** CSC108H, 148H; MAT102H, 138Y; 0.5 credit writing requirement (see Note 1., CSC Comprehensive Option Specialist Program)

**Second Year:** CSC207H/270H, 236H/238H, 258H, 263H; MAT222H/248Y; STA107H/257H

**Higher Years:** Four half courses from the following groups, of which at least three half courses must be from Group F.

**Group E:**

CSC300H(G), 318H(G)

**Group F:**

CSC209H, 309H, (one of 320H/  
321H/330H(G)/384H), 324H, 340H,  
343H, 350H, 351H, 354H, 363H/364H,  
369H/468H(G), 372H(G), 373H,  
401H(G), 407H(G), 408H(G), 411H(G),  
418H(G), 428H(G), 438H(G), 443H(G),  
446H(G), 448H(G), 454H(G), 456H(G),  
457H(G), 458H(G), 465H(G), (one of  
420H(G)/485H(G)/486H(G)/487H(G));  
488H(G)/ ECE489H(G); ECE385H(G);  
MAT443H(G)

**Minor Program ERMIN1688**

**NOTE:** This program was discontinued as of September 2000. Students already enrolled in the CSC Minor program will be allowed to complete it. Consult the Department for details.

**Computer Science: Information Systems Option (Science)****Specialist Program ERSPE1037**

Within an Honours degree, 15.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited to students who meet the following criteria:

**1. Prerequisite courses**

A minimum of 4.0 courses to include CSC148H(65%); MAT102H(60%), 138Y(60%)

**2. Cumulative Grade Point Average (CGPA)**

The minimum CGPA is determined annually. It is never lower than 2.0.

Tuition fees for students enrolling in any Computer Science Specialist/Major programs from 2001 onwards will be higher than for other Arts and Science programs.

# PROGRAMS

*First Year:* CSC108H, 148H; MAT102H, 138Y; MGT120H; STA107H; 1.0 credit writing requirement (see Note 1., CSC Comprehensive Option Specialist program)

*Second Year:* CSC207H/270H, 209H, 236H/238H, 258H, 263H; MAT222H/248Y; STA257H

*Third Year:* CSC324H, 340H, 343H, 350H, 363H/364H, 373H

*Third or Fourth Year:*

1. CSC318H, 369H, 407H(G)/408H(G), 443H(G), 454H(G)/MGT374H; MGT262H/363H/WDW260H
2. Two of: CSC309H, 354H, 372H(G), (one of 320H/321H/330H(G) / 384H), 401H(G), 407H(G)/408H(G) [not taken in Group 1], 418H(G), (one of 420H(G)/ 485H(G)/486H(G)/487H(G), 428H, 458H(G), 465H(G), 488H(G)/ ECE489H(G); ECE385H(G)

*Notes:*

1. Students are advised to arrange their program so as to complete the requirements for the Major in Computer Science by the end of the third year.

## Computer Science: Software Engineering Option (Science)

### Specialist Program ERSPE1039

Within an Honours degree, 14.5 credits are required.

**Limited Enrolment**—Enrolment in this program is limited to students who meet the following criteria:

1. **Prerequisite courses**  
A minimum of 4.0 courses to include CSC148H(65%); MAT102H(60%), 138Y(60%)
2. **Cumulative Grade Point Average (CGPA)**  
The minimum CGPA is determined annually. It is never lower than 2.0.

**Tuition fees for students enrolling in any Computer Science Specialist/Major programs from 2001 onwards will be higher than for other Arts and Science programs.**

*First Year:* CSC108H, 148H; MAT102H, 138Y; STA107H; 1.0 credit writing requirement (see Note 1., CSC Comprehensive Option Specialist program)

*Second Year:* CSC207H/270H, 209H, 236H/238H, 258H, 263H; MAT222H/248Y; STA257H

*Third Year:* CSC324H, 340H, 343H, 350H, 363H/364H, 373H

*Third or Fourth Year:*

1. CSC318H, 369H, 407H(G), 408H(G)
2. Two of: CSC354H, (one of 320H/321H/ 330H(G)/384H), 372H(G), 401H(G), 454H(G), 465H(G); ECE385H(G)
3. Two of: CSC309H, 418H(G), 443H(G), 458H(G), 488H(G)/ECE489H(G)

### Notes:

1. Students are advised to arrange their program so as to complete the requirements for the Major in Computer Science by the end of the third year.
2. Students in this program are strongly encouraged to consider participating in the PEY program. For information on PEY, phone (416) 978-6649.

## Crime and Deviance (Arts)

### Faculty Coordinator:

Professor David Brownfield (Sociology)  
Room 2101, South Bldg.  
(905) 828-3941

This program is designed to provide a broad foundation for students who may have an academic or civic interest in issues of crime and its control. This might include:

- a) students who at a later stage may wish to pursue more advanced work in areas related to, for example, criminology or social work;
- b) students wanting to know more about the topics of the sociology of crime, particularly as these become issues of public policy.

### Major Program ERMAJ0727

7.0 credits are required, including at least 2.0 300/400 level courses

**Limited Enrolment**—Students may apply to enrol after having completed 4.0 or more credits with a mark of 70% or higher in SOC101Y and a CGPA of at least 2.0. Students applying to enrol after having completed 8.0 credits must obtain an average mark of 70% or higher in all SOC courses and a CGPA of at least 2.0.

**First Year:** SOC101Y; PSY100Y  
**Higher Years:** SOC211H, 200Y/300Y,  
 307H

**Optional Courses:** 3.0 credits must be selected from the following list: SOC202Y, 205Y, 214Y, 215Y, 216H, 301Y, 303H, 304Y, 310H, 312Y, 316H, 323H, 324Y, 329H, 346Y, 365Y, 371H, 387H, 420H, 421H; FSC239Y; PHL271H, 283H, 370H; PSY220H, 230H, 240H, 270H, 325H, 340H, 341H, 420H

**Notes:**

- Sociology Web Site:** for further information about the Crime and Deviance Program and information about the Sociology Department, consult our web site: [www.utm.utoronto.ca/~w3soc/](http://www.utm.utoronto.ca/~w3soc/)

## Digital Enterprise Management

See Communication, Culture and Information Technology

## Drama Studies (Arts)

The Drama Department offers three programs:

- Theatre and Drama Studies (Specialist; joint program between UTM and Sheridan College)
- Performance and Theatre (Major)
- Performance and Theatre (Minor)

## Theatre and Drama Studies

### Specialist Program ERSPE1880

Within an Honours degree, 12.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited to students who are successful in an audition, conducted in April/May of each year.

For audition requirements, contact: Music Theatre Dept., Sheridan College, 1430 Trafalgar Rd., Oakville, Ontario, L6H 2L1, or phone Anne McMullen (905) 845-9430 ext. 2577.

Enrolment in all studio courses (DRS) and DRE421H is restricted to students in the program.

**First Year:** DRE121H, 122H; DRS121H, 122H

**Second Year:** DRS221H, 222H; DRE220H, 222H

**Third Year:** DRE342H; one of DRE340H, 344H, 346H, 348H, 350H, 352H, 360H, 362H, 364H, 366H; DRS321H, 322H, 325H, 326H

**Fourth Year:** DRE421H, 0.5 further DRE course at 300 level; DRS421H, 422H, 425H, 426H

2.0 additional credits are required to reach the total of 12.0 courses and they may be selected from the following: CLA300Y; \*DRE340H, \*344H, \*346H, \*348H, \*350H, \*352H, \*360H, \*362H, \*364H, \*366H, \*392H, \*394H; ENG220Y, 223H, \*332Y, \*338Y, \*339H, \*405H/\*406H/\*407H, \*408H (when a dramatist), \*420H/\*421H/422H/\*423H (when a dramatist); ERI201H, 202H; FRE317H, 395H; GER351H, 352H, \*355H; ITA242Y/\*243Y, 306H/\*307H, 312Y/\*313Y, 314Y/\*315Y, 342Y/\*343Y, \*372Y, \*490Y, \*495Y

\*= Departmental prerequisites

**Note:**

No more than a combination of 14.0 Drama related courses may be taken.

## Performance and Theatre

### Major Program ERMAJ2468

7.0 credits are required, as follows:

- DRE121H, 122H, 220H, 222H
- DRE342H and an additional 0.5 DRE credit at the 300 level
- 4.0 additional credits from drama-related courses, at least 1.0 at the 300+ level.  
 (See list of electives under Specialist Program.)

**Note:**

DRS courses cannot be counted toward this program.

### Minor Program ERMIN2468

4.0 credits are required, as follows:

- DRE121H, 122H, 220H, 222H
- 1.0 credit from DRE340H, 342H, 344H, 346H, 350H, 352H, 360H, 362H, 364H, 366H
- 1.0 additional credit from drama-related courses. (See list of electives under Specialist Program.)

# PROGRAMS

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## Earth Science Programs (Science)

The Earth Science Department offers two programs:

- a. Earth Science
  - b. Geology
- 

## Earth Science (Science)

*Faculty Advisor:*

Professor H. Halls  
(905) 828-5363

The programs in Earth Science have four main goals: (1) to teach the fundamental processes involved in the global Earth system; (2) to provide an understanding of the principal aspects of geological resources; (3) to study the causes and mitigation of hazards such as earthquakes, volcanic eruptions, and groundwater contamination; and (4) to learn how to minimize and adjust to global change. This approach, by focusing on a global environmental perspective, should appeal to students who have a general interest in geological processes and their fundamental role in our environment and the evolution of our planet.

### Specialist Program ERSPE1465

Within an Honours degree, 11.0 credits are required, including at least 4.0 at the 300/400 level, of which 1.0 must be at the 400 level.

*First Year:* ENV100Y/(ERS103H, 120H); CHM140Y; MAT132Y/138Y; PHY135Y/137Y

*Second Year:* ERS201H, 202H, 203H; GGR217H, 1.0 credit from GGR214H, 227H, 261H, 276H; PHY237H

*Third Year:* ERS315H, 317H, 319H, 325H; 1.0 credit from ERS336H, 337H; GGR303H, 316H, 321H, 337H, 376H, 379H

*Fourth Year:* 1.0 credit from ERS470Y, (471H, 472H); ENV400Y

### Major Program ERMAJ1465

7.5 credits are required, including at least 2.5 at the 300/400 level.

*First Year:* ENV100Y/(ERS103H, 120H); MAT132Y/138Y; CHM140Y/PHY135Y/137Y

*Second Year:* ERS201H, 202H, 203H; 0.5 credit from GGR214H, 217H, 227H, 261H, 276H

*Third and Fourth Year:* ERS315H, 317H, 319H, 325H; 0.5 credit from ERS336H, 337H; GGR303H, 316H, 321H, 337H, 376H, 379H

### Minor Program ERMIN1465

4.0 credits are required.

*First Year:* ENV100Y/(ERS103H, 120H)

*Second, Third and Fourth Year:* ERS201H, 202H, 203H; 1.5 Earth Science credits at the 300/400 level.

### Notes:

1. See also the Environmental Science Program, which combines Biology, Earth Science, and Geography.
  2. Approved areas of study are: Earth Science and Anthropology, Earth Science and Chemistry, Earth Science and Physics, and Geoarcheology. Consult Undergraduate Secretary for the details of these programs.
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## Geology (Science)

*Faculty Advisor:*

Professor H. Halls (Earth Science)  
(905) 828-5363

This program offers a traditional education in Geology, with emphasis on the field and laboratory study of the Earth, and is recommended for students wishing to pursue careers in the resource industries or graduate studies in Geology.

### Specialist Program ERSPE0509

Within an Honours degree, 13.5 credits are required.

*First Year:* CHM140Y; ENV100Y/(ERS103H, 120H); MAT132Y/138Y; PHY135Y/137Y

*Second Year:* ERS201H, 202H, 203H; 0.5 credit from GGR217H, 214H; PHY237H; AST252H; BIO356H; GLG217H(G); 1.0 credit from CHM211H, 221H, 231H; 1.0 credit from MAT212H, 222H; STA257H, 261H

*Third Year:* ERS325H; GLG318H(G), 345H(G), 351H(G), 360H(G); ENV315H(G)

*Fourth Year:*

1. GLG445H(G)
2. 2.5 credits from GLG(G) and ERS 400 level courses.

**Ecology (Science)**See Biology Programs, **Ecology**.**Economics (Arts, B.Com.)**

Enrolment in Economics programs is based on grades in ECO100Y and, in some cases, MAT132Y/133Y/138Y.

**Specialist Programs****Note:**

Program a) leads to an Honours B.A. degree. Program b) can only be taken jointly with the Specialist program in Commerce and Finance, and thus leads to a B.Com. degree. Enrolment in Program b) is open only to those who have been admitted to the B.Com. degree program.

**a) Economics Specialist Program****ERSPE1478**

Within an Honours degree, 13.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited to students with 70% in ECO100Y and (60% in MAT132Y/133Y or 55% in MAT138Y).

*First Year:* ECO100Y; MAT132Y/133Y/138Y

*Higher Years:*

1. ECO206Y, 208Y, 227Y/(STA257H, 261H), ECO322Y, 325H, 326H, 327Y
2. ECO303Y/323Y
3. 4.0 additional 300+ level ECO courses, including at least 1.0 at the 400 level
4. Students are strongly advised to take ENG100H before completing 15.0 courses.

**Major Program ERMAJ1478**

7.0 credits are required.

**Limited Enrolment**—Enrolment in the Major program is limited to students with 63% in ECO100Y, or who have passed ECO100Y and have a cumulative GPA of 2.50.

*First Year:* ECO100Y; MAT132Y/133Y/138Y

*Second Year:* ECO200Y/206Y, 202Y/208Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

*Higher Years:* 2.0 additional 300/400 level ECO courses, 1.0 of which must include as prerequisites two of: ECO200Y/206Y, 202Y/208Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

**Minor Program ERMIN1478**

4.0 credits are required.

**Limited Enrolment**—Enrolment in the Minor program is limited to students with 63% in ECO100Y, or who have passed ECO100Y and have a cumulative GPA of 2.50.

*First Year:* ECO100Y

*Second Year:* One of: ECO200Y/202Y/206Y/208Y

*Higher Years:* 2.0 additional ECO courses, including at least 1.0 at the 300/400 level.

**b) Economics (Commerce and Finance) Specialist Program ERSPE0137**

Within a B.Com degree, 15.5 credits are required.

**Limited Enrolment**—This program may only be taken jointly with the Specialist program in Commerce and Finance (and leads to a B.Com degree – see previous note). Students must be accepted in the Commerce and Finance (B.Com) Program in order to complete this Economics (B.Com) program. Enrolment in this program is limited to students with 70% in ECO100Y AND (60% in MAT132Y/133Y or 55% in MAT138Y) AND 63% in MGT120H AND a minimum cumulative GPA which is determined annually.

*First Year:* ECO100Y; MAT132Y/133Y/138Y; MGT120H; MGM101H

*Higher Years:*

1. Additional MGT Requirements (5.0 credits)
  - a) MGT123H/223H, 220H, 337Y
  - b) 1.0 credit from: MGT252H, 262H, 353H, 363H, 371H, 374H, 393H
  - c) 1.0 credit in MGT at 400 level
  - d) 1.0 credit in MGT at 200+ level

# PROGRAMS

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- e) No more than 15.0 COM(G), MGD, MGT, MGM and ECO courses may be taken for degree credit. STA250H, 257H, 261H count as ECO courses
2. Additional ECO Requirements (6.5 credits):
  - a) ECO206Y, 208Y, 227Y/(STA257H, 261H)
  - b) ECO327Y
  - c) One Economic History course from: ECO303Y/322Y/323Y
  - d) ECO325H, 326H, plus 0.5 additional ECO credit at the 300+ level
3. Writing Component (1.0 credit):  
One credit from the following:  
ANT(101H, 102H)/100Y, 204Y;  
CLA(except 201H); ECO373Y; ENG;  
FAH; HIS; LIN; PHL (excluding  
PHL245H, 344H, 345H, 346H, 347H);  
POL; RLG; SOC (excluding SOC300Y);  
WRI

Within an Honours degree, the following courses must be included in the program:

## Economics

- 8.0 credits
1. ECO100Y; MAT132Y/133Y/138Y
  2. ECO200Y/206Y, 202Y/208Y,  
220Y/227Y/(STA250H,  
257H)/(STA257H, 261H)
  3. ECO303Y/323Y, 322Y
  4. 1.0 additional 300/400 level ECO course

## Political Science

7.0 credits in POL, including at least 2.0 300/400 level courses of which 1.0 must be a 400 level course.

1. POL100Y/214Y
2. POL200Y, 309Y
3. 1.0 course from each of two of the fields listed under requirements for Political Science Specialist Program
4. 2.0 additional credits in Political Science

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## Economics and Political Science (Arts)

### Combined Specialist Program

ERSPE0751

**Limited Enrolment**—Enrolment in this program is limited. Students enrolling at the end of first year (4.0 credits) must obtain:  
1. a mark of at least 67% in 1.0 POL course and at least 63% in ECO100Y, and a minimum Cumulative Grade Point Average of 2.00.

- OR
2. a mark of at least 67% in 1.0 POL course and at least 50% in ECO100Y, and a minimum Cumulative Grade Point Average of 2.50.
- Students enrolling at the end of second year (8.0 credits) must obtain:  
1. a mark of at least 70% in each of 2.0 POL courses and at least 63% in ECO100Y, and a minimum Cumulative Grade Point Average of 2.30.
- OR
2. a mark of at least 70% in each of 2.0 POL courses and at least 50% in ECO100Y, and a minimum Cumulative Grade Point Average of 2.50.

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## English (Arts)

### Specialist Program ERSPE1645

Within an Honours degree, at least 10.0 credits and not more than 14.0 ENG courses fulfilling the following requirements:

1. ENG201Y/202Y
2. At least 3.0 courses selected from the pre-1800 group of courses (Group A), at least 2.0 of them at the 300 level or higher.
3. At least 2.0 courses selected from the post-1800 group of courses (Group B), both of them at the 300 level or higher.
4. At least 1.0 course selected from the Canadian Literature group of courses (Group C).
5. At least 1.0 course at the 400 level.
6. Only 1.0 100 level course may be counted toward the program requirements; ENG100H may NOT be counted.

**Group A:** ENG220Y, 240Y, 300Y, 302Y, 304Y, 306Y, 322Y, 330H, 332Y, 400Y, 401Y, 405H, 406H, 407H, 408H, 440Y, 441Y, 455H, 456H, 457H

**Group B:** ENG213H, 214H, 236H, 237H, 250Y, 253Y, 308Y, 324Y, 328Y, 329H, 338Y, 339H, 348Y, 349H, 358Y, 359Y, 361H, 366Y, 420H, 421H, 422H, 423H, 443Y, 444Y, 458H, 459H

**Group C:** ENG215H, 216Y, 223H, 252Y, 350H, 354Y, 356H, 430H, 431H, 432H, 433H

#### **Major Program ERMAJ1645**

At least 7.0 ENG courses fulfilling the following requirements:

1. ENG201Y/202Y
2. At least 2.0 courses selected from the pre-1800 group of courses (Group A, above), at least 1.0 of them at the 300 level or higher.
3. At least 1.0 course, at the 300/400 level, selected from the post-1800 group of courses (Group B, above).
4. At least 1.0 course selected from the Canadian Literature group of courses (Group C, above).
5. Only 1.0 100 level course may be counted toward the program requirements; ENG100H may NOT be counted.

#### **Minor Program ERMIN1645**

At least 4.0 ENG courses, fulfilling ALL of the following requirements:

1. ENG201Y/202Y
2. 1.0 course at the 300/400 level.
3. Only 1.0 100 level course may be counted toward the program requirements; ENG100H may NOT be counted.

#### **Note:**

"Courses" refers to full (Y) courses or the equivalent in half (H) courses.

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### **English and History (Arts)**

#### **Combined Specialist Program**

#### **ERSPE0477**

Within an Honours degree, 14.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited. Students may enrol after completing at least 4.0 courses, including 2.0 HIS courses with a mark of at least 70% in each.

#### **A. English**

At least 6.0 and no more than 8.0 courses according to the following categories:

1. ENG201Y/202Y
2. At least 2.0 courses selected from the pre-1800 group of courses (Group A above), at least 1.0 of them at the 300/400 level.
3. At least 1.0 course, at the 300/400 level, selected from the post-1800 group of courses (Group B above).
4. At least 1.0 course selected from the Canadian Literature group of courses (Group C above).
5. Only 1.0 100 level course may be counted; ENG100H may NOT be counted.

#### **B. History**

*First Year:* A 100 level HIS course; an additional HIS course at the 100 or 200 level may be taken.

*Higher Years:* Additional HIS courses to a total of at least 7.0 in at least two divisions as defined in the **History Handbook**. These courses must include at least 3.0 300/400 level courses in British, Canadian, or U.S. History.

C. 1.0 course will be a senior essay (either ENG490Y or HIS497Y) in the final year of study on a topic chosen by the student and written under the supervision of the appropriate Department. Students enrolling in either course must follow the procedures set out in the course description. ENG490Y has a prerequisite of 4.0 ENG courses with an overall average of B.

#### **Notes:**

1. Specialists may substitute non-HIS courses taught elsewhere in the Faculty for up to 3.0 of the HIS courses. The **History Handbook** identifies substitutions. It is available from the History Dept., Rm. 227, North Bldg., (905) 828-3725.
2. Specialists must take a 100 level HIS course to complete the program.

Students in the Program are required to confirm their Programs annually with the Faculty Advisor during the registration period.

# PROGRAMS

## Environment Programs

During the past few decades, an inspiring new view of our planet has emerged, a view that began to develop when the first photographs of Earth were sent from space. Since that time, an explosion of scientific information and analytical capability has contributed to our understanding of Earth as a complex and potentially fragile system. As inhabitants of Earth, we are challenged to inform ourselves as fully as possible about the functioning of the complexly interconnected subsystems that make up the Earth system, and about the impacts of human activities on that system. The necessity for new initiatives and creative approaches to environmental management, rather than "quick fix" solutions, has become increasingly apparent. These innovative approaches to Earth systems management will be developed through human ingenuity, the ability to think creatively and cross traditional boundaries, and our willingness to respond to problems in a socially and environmentally responsible manner.

UTM offers programs in four areas designed to give students the opportunity to explore a broad spectrum of environmental topics from an interdisciplinary perspective. They are:

- Environment and Human Society (B.A.)
- Environmental Analysis and Monitoring (B.Sc.)
- Environmental Management (B.A.)
- Environmental Science (B.Sc.)

These programs represent a collaborative effort among a number of disciplines in Science, Social Science, and Humanities. Students often choose to complete a double major or specialist-major combination by combining one of the Environment programs with a discipline-based program. (Note that double majors or specialist-major combinations of two or more Environment programs are not encouraged. Please consult the Degree Requirements section of the Calendar to ensure that you meet all of the requirements for graduation.)

For more information about Environment programs and courses, as well as career and graduate study options and volunteer placements, please visit our web site. From the main UTM web site

([www.utm.utoronto.ca](http://www.utm.utoronto.ca)), click on "Current Students", "Academic Web Sites" and "Environment". You can also telephone or e-mail any of the Environment Program Advisors, whose contact information is given below.

## Environment and Human Society (Arts)

### *Program Advisors:*

Dr. Harriet Friedmann (Sociology)  
(905) 828-3948

[friedman@chass.utoronto.ca](mailto:friedman@chass.utoronto.ca)

Dr. Laurel MacDowell (History)  
(905) 828-5284

[lmacdowe@utm.utoronto.ca](mailto:lmacdowe@utm.utoronto.ca)

Dr. Barbara Murck (Environment)  
(905) 828-5426

[bmurck@utm.utoronto.ca](mailto:bmurck@utm.utoronto.ca)

This program provides students with the opportunity to explore environmental issues from the perspective of the Humanities and Social Sciences. Through course work, students consider the ethical, moral, and aesthetic issues inherent in our relationship with and exploitation of the natural world. The program also allows students to focus on political, social, and economic institutions, and how they have shaped the human-environment relationship. By looking at the history of environmental movements, students gain an understanding of how this relationship, along with our conceptual understanding of the environment, has changed over time.

### **Major Program ERMAJ1105**

7.0 credits are required.

**Limited Enrolment**—enrolment in this program is limited to students who have completed ENV100Y with a mark of 65% or higher.

**First Year:** ENV100Y

**Second Year:**

1. GGR234H/255H
2. ENG259Y/PHL273H/RLG228H

3. 2.0 credits from ANT204Y, 241Y; BIO205H; CLA201H, 234H; ENG259Y; ENV299Y; GGR228Y, 255H, 288H, 289H; PHL252H, 255H, 273H; PHY205H, 206H; POL209Y; RLG228H; SOC277Y

**Higher Years:**

1. HIS318Y
2. 2.0 credits from ANT327H, 339Y, 405H, 414H; ECO373H; ENV490H, 491H; GGR306H, 319H, 325H, 329H, 333H, 340H, 345H, 349H, 355H, 359H, 361H, 365H, 393H, 456H; HIS366Y; POL343Y; RLG338Y; SOC304Y, 312Y, 319Y; WRI307H

**Notes:**

1. Please note that a number of the 300/400 level course options in this program have 100 level prerequisites. Plan ahead to take 100 and 200 level courses that will enhance your upper-level course options in your area of interest.
2. ENV100Y is considered to be a science course for the purpose of fulfilling Distribution Requirements.
3. Students will find that a wide range of courses listed in the other three Environmental Programs complement courses listed in this program.
4. No more than 4.0 FCE from any one discipline will be counted in fulfillment of the program requirements.

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## **Environmental Analysis and Monitoring (Science)**

**Program Advisors:**

Dr. U.J. Krull (Chemistry)  
(905) 828-5437

ukrull@utm.utoronto.ca

Dr. Barbara Murck (Environment)  
(905) 828-5426

bmurck@utm.utoronto.ca

These programs introduce students who are interested in laboratory science to the field of environmental analysis and monitoring. Through exposure to the latest analytical research techniques and state-of-the-art procedures for monitoring the environment, students are prepared for careers in environmental science and technology.

Course work will enable graduates to use effective strategies for the chemical, physical, and biotechnical remediation and control of environmental problems. The Specialist program begins with a common base of scientific training, emphasizing chemical techniques. Students may then choose to focus on either the biological or the physical aspects of environmental science. The Major program focuses principally on the application of analytical methods in Chemistry and Biology to problems in environmental analysis and monitoring. These programs give students the background and technical expertise that are considered essential by many industrial and government employers.

**Specialist Program ERSPE1080**

Within an Honours degree, 12.5 credits are required.

**Limited Enrolment**—Enrolment in this program is limited to students who have completed ENV100Y with a mark of 65% or higher.

**First Year:** CHM140Y; ENV100Y; MAT132Y/138Y; PHY135Y/137Y/ (BIO152H, 153H)

**Second Year:**

1. CHM211H, 221H
2. PHY237H/BIO205H
3. Selection of:

**Physical Processes:** 1.0 credit from ERS201H, 202H, 203H; GGR214H, 217H, 227H

**or Biological Processes:** BIO204H, 206H

**Third and Fourth Year:**

1. (BIO360H, 361H)/(STA220H, 221H)
2. 2.0 credits from CHM242H, 243H, 311H, 361H, 391H, ENV377H
3. Selection of 2.0 credits from one stream, with a maximum of 1.5 from any one department.

**Physical Processes:** 2.0 credits from CHM231H, 331H, 393H, 414H; ERS315H, 317H, 336H, 337H; GGR303H, 307H, 315H, 375H, 376H, 379H, 407H, 479H

# PROGRAMS

- or Biological Processes:** 2.0 credits from BIO310H, 312H, 316H, 330H, 332Y, 337H, 405H, 464H; CHM231H, 242H, 243H, 361H, 371H, 462H; ENV317H; GGR305H, 309H, 311H.
4. 1.0 credit from ENV400Y, 490H, 491H, 497H, 498Y

## Major Program ERMAJ1080

8.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited to students who have completed ENV100Y with a mark of 65% or higher.

### First Year:

BIO(152H,153H)/PHY135Y/137Y;  
CHM140Y; ENV100Y; MAT132Y/138Y

### Second Year:

1. BIO205H
2. CHM211H, 221H
3. 1.0 credit from ERS201H, 202H, 203H; GGR214H, 217H, 227H

### Higher Years:

1. BIO337H/332Y
2. 1.0 credit from CHM242H, 243H, 311H, 361H, 391H; ENV377H; PHY237H

### Notes:

1. The selection of program stream for the Specialist program must be made in consultation with one of the Program Advisors. Students who plan to follow the Biological Processes stream should plan ahead, and choose to take BIO152H, 153H in First Year.
2. A course in statistics (BIO360H, 361H)/(STA220H, 221H) is highly recommended for the Major program.
3. Students in both the Specialist and Major programs are recommended to take CSC108H/148H. To accomplish this, courses for the Distribution Requirements may need to be selected from 200 or higher level courses. Social Science courses that are particularly relevant include ECO373H, GGR234H, 345H, 393H (among others). Humanities courses that are particularly relevant include ENG259Y, HIS318Y, PHL273H (among others).

4. Students will find that a wide range of courses listed in the other three Environmental Programs complement courses listed in this program.

## Environmental Management (Arts)

### Program Advisors:

Dr. Anthony Wensley (Management)

(905) 828-5318

wensley@mgmt.utoronto.ca

Dr. Barbara Murck (Environment)

(905) 828-5426

bmurck@utm.utoronto.ca

These programs provide students with the opportunity to focus on environmental issues and public policy, and the role of political and socioeconomic institutions in environmental management. Awareness of the political, social, economic, and legal framework in which environmental management occurs is fundamental to dealing with the challenges and opportunities of living in an increasingly urbanized world. It is also important that those who manage institutions and create and administer public and private-sector policies have a basic scientific understanding of the natural environment. The programs provide students with the background they will need in order to proceed toward careers in environmental management and policymaking.

## Specialist Program ERSPE1425

Within an Honours degree, 12.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited to students who have completed ENV100Y with a mark of 65% or higher.

**First Year:** ENV100Y; ECO100Y/  
POL100Y/201Y

### Second Year:

1. BIO205H
2. GGR234H; 1.0 credit from GGR214H, 217H, 227H
3. 0.5 credit from BIO360H; GGR261H, 276H; STA220H

*Third and Fourth Years:*

1. GGR393H/493H
2. 1.0 credit from BIO301H, 316H, 330H, 332Y, 337H, 405H, 464H; ENV317H; GGR305H, 311H
3. 1.5 credits from ENV377H; ERS315H, 317H, 319H, 336H, 337H; GGR303H, 305H, 307H, 309H, 311H, 315H, 316H, 321H, 337H, 338H, 340H, 375H, 376H, 379H, 389H, 407H
4. 1.5 credits from ANT241Y; ECO373H; ENG259Y; GGR228Y, 288H, 289H, 306H, 308H, 319H, 329H, 333H, 340H, 345H, 349H, 355H, 361H, 365H, 372H, 456H; HIS318Y; MGT393H, 394H; PHL273H; POL209Y, 317Y; RLG228H; SOC312Y, 319Y
5. 2.0 additional 300/400 level credits chosen from those listed in #2, #3, or #4, or ENV299Y
6. 1.0 credit from ENV400Y, 490H, 491H, 497H, 498Y

**Major Program ERMAJ1425**

8.0 credits are required.

**Limited Enrolment**—enrolment in this program is limited to students who have completed ENV100Y with a mark of 65% or higher.*First Year:* ENV100Y; ECO100Y/POL100Y*Second Year:*

1. BIO205H
2. GGR234H; 1.0 credit from GGR214H, 217H, 227H
3. 0.5 credit from BIO360H; GGR261H, 276H; STA220H

*Higher Years:*

1. GGR393H/493H
2. 0.5 credit from BIO301H, 316H, 330H, 332Y, 337H, 405H, 464H; ENV317H; GGR305H, 311H
3. 0.5 credit from ENV377H; ERS315H, 317H, 319H, 336H, 337H; GGR303H, 305H, 307H, 309H, 311H, 315H, 316H, 321H, 337H, 338H, 340H, 375H, 376H, 379H, 389H, 407H
4. 1.0 credit from ANT241Y; ECO373H; ENG259Y; GGR228Y, 288H, 289H, 306H, 308H, 319H, 329H, 333H, 340H, 345H, 349H, 355H, 361H, 365H, 372H, 456H; HIS318Y; MGT393H, 394H; PHL273H; POL209Y, 317Y; RLG228H; SOC312Y, 319Y

5. 1.0 additional 300/400 level credit chosen from those listed in #2, #3, or #4

*Note:*

Students will find that a wide range of courses listed in the other three Environmental Programs complement courses listed in this program.

**Environmental Science (Science)***Program Advisors:*

TBA (Biology)

(905) 828-5366

Dr. Scott Munro (Geography)

(905) 828-3929

smunro@eratos.erin.utoronto.ca

Dr. Barbara Murck (Environment)

(905) 828-5426

bmurck@utm.utoronto.ca

These programs are designed to provide a broad scientific foundation for students interested in a career or advanced study in environmental science. The focus is on the interactions of living organisms (including humans) with the natural environment: land, water, and air. Course work will familiarize students with the structure and function of various types of natural and managed ecosystems. Students will learn about local, regional, and global environmental problems, and will acquire the conceptual and practical skills needed to develop and implement solutions. Field courses in Biology, Earth Science, and/or Geography are an integral part of these programs.

**Specialist Program ERSPE1061**

Within an Honours degree, 12.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited to students who have completed ENV100Y with a mark of 65% or higher.*First Year:* ENV100Y; MAT132Y/138Y/ (CSC108H, 148H); CHM140Y/PHY135Y/ 137Y*Second Year:*

1. BIO205H
2. 1.0 credit from ERS201H, 202H, 203H
3. GGR234H; 1.0 credit from GGR214H, 217H, 227H

# PROGRAMS

## Third and Fourth Years:

1. (BIO360H, 361H)/(STA220H, 221H)
2. 1.0 credit from BIO301H, 302H(G), 303H(G), 304H(G), 306H(G), 308H(G), 316H; ENV317H; ERS325H; GGR319H, 379H, 389H, 390H(G); GLG445H(G), 448H(G)
3. 1.0 credit from BIO312H, 330H, 332Y, 335H, 337H, 405H, 418H, 464H
4. 1.0 credit from ENV377H; GGR303H, 305H, 307H, 309H, 311H, 315H, 316H, 321H, 337H, 338H, 355H, 372H, 375H, 376H, 393H, 407H, 488H
5. 1.0 credit from ERS315H, 317H, 319H, 336H, 337H
6. 1.0 credit from ENV400Y, 490H, 491H, 497H, 498Y

## Major Program ERMAJ1061

8.0 credits are required.

**Limited Enrolment**—Enrolment in this program is limited to students who have completed ENV100Y with a mark of 65% or higher.

**First Year:** ENV100Y; MAT132Y/138Y/(CSC108H, 148H); CHM140Y/PHY135Y/137Y

### Second Year:

1. BIO205H
2. 1.0 credit from ERS201H, 202H, 203H
3. GGR234H; 1.0 credit from GGR214H, 217H, 227H

### Higher Years:

1. 0.5 credit from BIO301H, 302H(G), 303H(G), 304H(G), 306H(G), 308H(G), 316H; ENV317H; ERS325H; GGR319H, 379H, 389H, 390H(G); GLG445H(G), 448H(G)
2. 0.5 credit from BIO312H, 330H, 332Y, 335H, 337H, 405H, 418H, 464H
3. 0.5 credit from ENV377H; GGR303H, 305H, 307H, 309H, 311H, 315H, 316H, 321H, 337H, 338H, 355H, 372H, 375H, 376H, 393H, 407H, 488H
4. 0.5 credit from ERS315H, 317H, 319H, 336H, 337H

### Notes:

1. BIO152H, 153H are strongly recommended for both the Major and Specialist programs; these courses will greatly enhance 300/400 level course options.

2. A course in statistics (BIO360H, 361H)/(STA220H, 221H) is highly recommended for the Major program.
3. For Distribution Requirements, Social Science courses that are particularly relevant include ECO373H, GGR234H, 345H, 393H (among others). Humanities courses that are particularly relevant include ENG259Y, HIS318Y, PHL273H (among others).
4. Students will find that a wide range of courses listed in the other three Environmental Programs complement courses listed in this program.

## European Studies (Arts)

### Faculty Coordinator:

TBA

### Departmental Secretary:

Maria da Mota  
Room 227, North Bldg.  
(905) 828-3747  
mdamota@utm.utoronto.ca

This is an interdisciplinary academic program focusing on the countries of the European Union, designed to develop expertise on modern Europe. Students must acquire fluency in French, German or Italian. Language instruction emphasizes oral and written communication. Students will be able to explore a broad spectrum of issues: historical, political, the arts, culture, economic, ideologies of European countries and their geography. The time frame is approximately 1750 to the present. It is strongly recommended that students participate in the University of Toronto International Student Exchange Program in France, Germany or Italy during their third year.

## Specialist Program ERSPE1625

11.0 credits are required including at least 6.0 credits at the 300/400 level with at least 1.0 credit at the 400 level.

**Limited Enrolment**—Enrolment in this program is open only to students who have successfully completed at least 4.0 credits with a CGPA of at least 2.00 and who have earned a grade of at least 70% in one of the first year required language courses.

1. 3.0 language credits from one of FRE/GER/ITA including at least 1.0 at the 300/400 level
2. EUR200Y
3. POL302Y
4. 1.0 credit in cultural/literary studies within the chosen language Department
5. 1.0 credit within a participating discipline
6. 4.0 additional credits at 300/400 level from the list under second, third and fourth years. (see following)

The following progression is recommended.

**Note:** Some of the courses listed may have prerequisites.

*First Year:* 1.0 credit from the following: (FSL105H, 106H, 205H, 206H)/(GER100Y/101H, 200Y)/(ITA100Y, 200Y)

*Second Year:* EUR200Y; 1.0 credit from: FSL206H/261Y/ 280Y; GER200Y, 300Y; ITA200Y, 350Y

*Third Year:* POL302Y; 1.0 credit from: FSL261Y, 280Y, 366H, 382H, 383H; GER300Y, 400Y; ITA350Y, 371Y, 450Y  
*Second, Third or Fourth Year:* 2.0 credits from the following courses, 1.0 of which must be a culture/literature course within the chosen language Department:

DRE121H, 122H, 342H;  
 ECO303Y;  
 ENG110Y, 120Y, 200Y, 201Y, 202Y, 308Y, 312Y, 324Y, 328Y, 329H, 336Y, 338Y;  
 ERI201H, 202H;  
 FAH287H, 288H, 315H, 319H, 378H, 452H;  
 FRE180Y, 190Y, 240Y, 322Y, 364Y, 367H, 368H, 395H, 436H;  
 GER150H, 205H, 305H, 325H, 329H, 335H, 351H, 352H, 355H, 430H, 434H, 460H; HIS236Y, 308Y, 329Y, 341H, 429H, 443Y, 475Y;  
 ITA220Y/221Y, 230Y, 234Y/235Y, 242Y/243Y, 306H/307H, 317H/318H, 342Y/343Y, 390Y, 398Y/399Y;

PHL210Y, 290H, 309H, 317H, 324H; POL204Y, 205Y, 309Y, 320Y, 327Y, 340Y, 343Y

*Third or Fourth Year:* 4.0 credits at 300/400 level (at least 1.0 at the 400 level) from the above list.

### **Major Program ERMAJ1625**

7.0 credits are required, including at least 2.0 at the 300/400 level.

**Limited Enrolment**—Enrolment in this program is limited to students who have completed 4.0 credits with a CGPA of at least 2.00 and a grade of at least 70% in a first year language course.

1. 3.0 language credits from one of FRE/GER/ITA including at least 1.0 at the 300/400 level
2. EUR200Y
3. POL302Y
4. 1.0 credit in cultural/literary studies within the chosen language Department
5. 1.0 credit within a participating discipline

The following progression is recommended.

**Note:** Some of the courses listed may have prerequisites.

*First Year:* 1.0 credit from the following languages: [FSL100H, 102H, 121Y, 163H]/[GER100Y, 101H, 200Y]/[ITA100Y, 200Y]

*Second Year:* EUR200Y; 1.0 credit from: [FSL163H, 261Y, 280Y]/[GER200Y, (300H, 301H)]/[ITA350Y, 355Y]

*Third Year:* POL302Y; 1.0 credit from: FSL261Y, 280Y, 366H, 382H, 383H; GER300Y, 400Y; ITA350Y, 355Y, 371Y, 450Y

*Second, Third or Fourth Year:* 2.0 credits from the list of courses under "Second, Third or Fourth Year" of the Specialist program (above), one of which must be a culture/literature course within the chosen language Department.

### **Exceptionality in Human Learning (Science)**

See Psychology

# PROGRAMS

## Fine Art

See Art and Art History or Art History

## Forensic Science Programs (Science)

There are five Forensic Science programs available:

- a. Forensic Science – Anthropology (Specialist)
- b. Forensic Science – Biology (Specialist)
- c. Forensic Science – Chemistry (Specialist)
- d. Forensic Science – Psychology (Specialist)
- e. Forensic Science (Major; must be combined with an approved second major)

### Note:

Entry into all Forensic Science Specialist Programs is by Special Application only. Application Deadline is April 1<sup>st</sup> of each year.

Application to these Specialist Programs can be submitted by:

1. Direct on-line application at:  
[www.utm.utoronto.ca/~w3fsc](http://www.utm.utoronto.ca/~w3fsc)
2. Required accompanying documentation can be submitted directly to:

The Forensic Science Program Office  
The University of Toronto  
at Mississauga  
3359 Mississauga Road, Rm. 227 N.B.  
Mississauga, ON L5L 1C6

## Forensic Science - Anthropology (Science)

### Specialist Program ERSPE1338

Within an Honours degree, at least 16.0 credits are required.

### Limited Enrolment

Enrolment in this Program is limited and by application only. To qualify, students must meet the following minimum requirements. Meeting the requirements does not guarantee admission:

1. Completion of 4.0 credits; including 3.0 science credits.
2. Completion of ANT101H and ANT102H with a grade of at least 65% in both (students applying to enrol after second year must have completed 8.0 credits and achieved at least 65% in each of ANT200Y, 203Y and 204Y).
3. A minimum Cumulative Grade Point Average of at least 3.0.

### First Year:

1. ANT101H, 102H; CHM140Y; BIO152H, 153H; FSC239Y

### Second Year:

2. ANT200Y, 203Y, 204Y, 205H; PHL271H

3. at least 0.5 credit in PHY

### Third Year:

4. ANT306H, 334Y, 336H; BIO338H, 360H, 361H; FSC301H

### Fourth Year:

5. ANT415Y, 439Y; FSC401H, 481Y

### Recommended:

ANT338H, 358H, 438H; BIO204H, 210H; WRI203H, 307H

## Forensic Science - Biology (Science)

### Specialist Program ERSPE1410

Within an Honours degree, 16.0 credits are required, including at least 5.0 at the 300/400 level, of which 1.0 must be at the 400 level.

**Limited Enrolment**

Enrolment in this Program is limited and by application only. To qualify, students must meet the following minimum requirements. Meeting the requirements does not guarantee admission:

1. Completion of 4.0 credits; including 3.0 science credits
2. Completion of 1.0 credit in Biology with 65% or better
3. Completion of 1.0 credit in Chemistry with 65% or better
4. A minimum Cumulative Grade Point Average of at least 3.00. The actual GPA requirement in any particular year may exceed this value, in order to achieve a proper balance between enrolments and teaching resources.

**First Year:**

1. BIO152H, 153H; CHM140Y; MAT132Y/138Y/(CSC108H, 148H); FSC239Y
2. 1.0 from: ANT100Y; PSY100Y

**Second Year:**

3. BIO204H, 205H, 206H, 207H, 210H/215H; PHY135Y; PHL271H

**Third and Fourth Years:**

4. BIO338H, 360H\*, 361H\*, FSC301H, 310H, 401H, 402H, 481Y  
\*No substitute statistics course will be allowed for BIO360H/361H except under exceptional circumstances.
5. 2.5 additional BIO credits at the 300/400 level.

**Forensic Science - Chemistry (Science)****Specialist Program ERSPE1009**

Within an Honours degree, 13.5 credits are required.

**Limited Enrolment**

Enrolment in this Program is restricted and selection will be based on completion of 4.0 credits including CHM140Y (minimum grade of 65%); MAT132Y/138Y; and a minimum GPA of 3.00. Meeting the minimum requirements does not guarantee admission.

**First Year:** CHM140Y; MAT132Y/138Y; PHY135Y/137Y

**Higher Years:**

1. CHM211H, 221H, 231H, 241H, 261H; FSC239Y
2. CHM311H, 331H/333H, 341H/345H, 347H, 371H/391H, 393H; (BIO360H, 361H)/(STA220H, 221H)
3. CHM414H, 416H (G)
4. FSC481Y (with chemistry focus)/CHM489Y
5. 1.0 credit at 300/400 level in CHM/JCP/FSC

**Notes:**

1. Students are strongly advised to consult program advisor regarding the program of study.
2. Corequisites for CHM371H are CHM361H, 362H.
3. Students are strongly urged to take as many forensic sciences courses as possible from the following list: ANT205H, 306H; BIO338H; FSC301H, 401H, 402H; PSY344H.

**Forensic Science - Psychology (Science)****Specialist Program ERSPE1505**

Within an Honours degree, at least 15.0 credits are required.

**Limited Enrolment**

Enrolment in this Program is limited to a relatively small number of students per year and is by application only. Meeting the following minimum requirements does not guarantee admission.

1. Completion of 4.0 credits, including 3.0 science credits
2. Completion of CHM140Y; MAT132Y/138Y/(CSC108H, 148H)
3. Completion of PSY100Y with a grade of at least 77%
4. A minimum Cumulative Grade Point Average of at least 3.00.

**First Year:**

1. CHM140Y; FSC239Y; MAT132Y/138Y; PSY100Y

# PROGRAMS

## Second and Higher Years:

2. (PSY201H\*, 202H)/(BIO360H\*, 361H)  
\*No substitute statistics course will be allowed for PSY201H or BIO360H except under exceptional circumstances.
3. at least 0.5 credit in PHY
4. PHL271H and 1.0 credit from:  
FSC301H, 310H, 401H, 402H
5. 2.5 credits from the following PSY courses: 0.5 credit must be taken from each of the following groups (courses in bold are recommended choices)
  - a. Biological Bases of Behaviour:  
**PSY252H, 290H, 295H**
  - b. Cognitive/Perception: **PSY270H, 280H**
  - c. Social/Personality/Abnormal:  
**PSY220H, 230H, 240H**
  - d. Developmental: PSY210H, **213H**

## Third Year:

6. PSY309H
7. One laboratory course from: PSY329H, 379H, 399H

## Third and Fourth Year:

8. 2.5 credits from the following:  
PSY320H, 321H, 325H, 327H, 331H, 332H/343H, 333H, 340H, 341H, 344H, 345H, 346H, 393H

## Fourth Year:

9. PSY400Y/442Y
10. FSC481Y

## Forensic Science

### Major Program ERMAJ0205

#### Note:

This program must be taken as part of an Honours degree.

8.0 or 8.5 credits are required including at least 2.0 at the 300/400 level.

#### Limited Enrolment

1. Enrolment in the Forensic Science Major Program is permitted only after successful application to the Program Director. (See Note 1)
2. An approved second Major (See Note 2)

*First Year:* CHM140Y

*Second Year:* BIO206H, 215H, 207H;  
FSC239Y; PHL271H; PHY135Y/206H

*Third Year:* \*ANT334Y; BIO334H/338H;  
(BIO360H, 361H)/(STA220H, 221H)

*Fourth Year:* 1.0 from the following list:

FSC301H, 310H, 401H, 402H

\*For FSC Majors only, ANT203Y will be waived as a prerequisite for ANT334Y.

#### Notes:

##### 1. Admission to Forensic Science Major

- a) By application only.

Application to the program can be submitted by:

- i) Direct on-line application at:  
[www.utm.utoronto.ca/~w3fsc/](http://www.utm.utoronto.ca/~w3fsc/) or applications and accompanying documentation can be

- ii) Submitted directly to:

The Forensic Science Program  
Office

The University of Toronto  
at Mississauga

3359 Mississauga Rd., Rm. 227 NB  
Mississauga ON L5L 1C6

- b) Application deadline is April 1st of each year.

##### c) Minimum Requirements to apply:

- i) Completion of one academic year of university (4.0 credits)
- ii) Completion of 3.0 science credits, of which 1.0 must be in Chemistry.
- iii) The minimum Cumulative GPA is determined annually. It is never below 2.70.

- d) The Faculty selects approximately 35 new FSC Majors per year from about 100 qualified applicants.

##### 2. Second Major

- a) Enrolment in a second science major is required. Anthropology, Biology, Chemistry, Computer Science, and Psychology are approved. Others may be possible with the approval of the Program Director.

- b) If the second major does not require calculus (e.g., as in Anthropology), MAT132Y will replace ANT334Y in the FSC Major course requirements.

- c) For each of the second majors, course requirements are listed elsewhere in this Calendar. In each program certain courses are compulsory. Where a choice of courses is available, students should consult the Faculty Advisor for Forensic Science for the most appropriate selection.

## French Language and Literature (Arts)

### Specialist Program ERSPE1295

Within an Honours degree, 10.0 credits are required, including at least 4.0 300/400 level courses, 1.0 of which must be a 400 level course.

*First Year:* FRE180Y or equivalent

*Second Year:* FRE240Y, 272Y; FSL282H, 283H/280Y

*Third/Fourth Years:*

1. FRE373Y; FSL382H, 383H
2. 5.0 FRE literature courses including:
  - a) at least 1.0 FRE course in pre-1800 literature
  - b) at least 1.0 FRE course in post-1800 literature
  - c) at least 1.0 FRE course in Quebec literature
  - d) at least 1.0 400 level course

### Major Program ERMAJ1295

7.0 credits are required, including at least 2.0 300/400 level courses.

*First Year:* FRE180Y or equivalent.

*Second Year:* FRE240Y, 272Y; FSL282H, 283H/280Y

*Third Year:* 3.0 FRE literature courses including:

1. at least 0.5 FRE course in pre-1800 literature
2. at least 0.5 FRE course in post-1800 literature
3. at least 0.5 FRE course in Quebec literature

### Course Categories:

Group A (French Linguistics):

FRE272Y, 373Y, 375Y, 376H, 378H, 387H, 476H, 489H

Group B (Literature until 1800):

FRE359H

Group C (Literature after 1800):

FRE364Y, 367H, 368H

Group D (Quebec literature):

FRE312H, 317H

Group E (Teaching & Learning):

JFI225Y, 388Y, 488H; FRE335H, 345H, 355H

Group unspecified in Literature courses:

FRE446H

Breadth Requirement: FRE290Y, 390H, 395H

## French Language and French Linguistics (Arts)

### Major Program ERMAJ0525

7.0 credits are required, including at least 2.0 300/400 level courses.

*First Year:* FRE180Y or equivalent

*Second Year:* FRE240Y, 272Y; FSL282H, 283H/280Y

*Third Year:* 3.0 FRE Linguistics courses including at least 2.0 at the 300/400 level.

## French Minor Programs

The French department offers three Minor programs:

- a. Functional French – for students seeking a level of linguistic competence with a view to using the French language in professional Francophone environments.
- b. Francophone Studies – for students wishing to develop an understanding and appreciation of the mentality and diversity that Francophone cultures express.
- c. French Studies – for students wishing to choose a combination of language, literature and/or linguistic offerings with limited access to core French courses.

## Functional French (Arts)

### Minor Program ERMIN1000

4.0 credits are required, including 2.0 at the 300 level, specified as follows: FSL105H, 106H, 205H, 206H, 305H, 306H, 365H, 366H; plus 1.0 FSL/FRE/JFI credit at the 300/400 level.

## Francophone Studies (Arts)

### Minor Program ERMIN1054

4.0 credits are required, including 1.0 at the 300 level, specified as follows: FSL105H, 106H, 205H, 206H; FRE290Y, 390H, 395H; plus 1.0 FSL/FRE/JFI credit at the 300/400 level.

# **PROGRAMS**

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## **French Studies (Arts)**

### **Minor Program ERMIN1135**

4.0 credits are required, including 1.0 at the 300 level, specified as follows: FRE180Y, 280Y, 240Y/272Y, plus 1.0 FRE credit at the 300/400 level.

#### **Note:**

Students enrolled in the French Studies Minor prior to Summer 2003 should consult the Department regarding completion of their program.

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## **French and Italian (Arts)**

### **Combined Specialist Program**

#### **ERSPE0815**

Within an Honours degree, 14.0 credits are required. The program must include a minimum of 4.0 300/400 level credits (2.0 in French and 2.0 in Italian) and 1.0 credit at the 400 level (either in French or in Italian).

#### **French**

7.0 credits are required.

*First Year:* FRE180Y or equivalent

*Higher Years:*

1. FRE240Y
2. FSL282H, 283H/280Y, 382H, 383H
3. 1.0 credit from Group A of the French program
4. 1.0 credit from Group B, C, or D of the French program.
5. 1.0 additional credit in French linguistics or literature.

#### **Italian**

7.0 credits are required.

*First Year:* ITA100Y. If students have already taken grade 12 or OAC Italian (or equivalent), or if the course is waived, they automatically go to higher years and choose one extra course from the courses offered there.

*Higher Years:*

1. 2.0 credits from ITA200Y, 221Y, 230Y, 235Y, 350Y
2. ITA321Y
3. 3.0 additional credits in ITA including those not used in #1 above. At least 2.0 credits must be in Italian literature.

## **Language Teaching and Learning: French (Arts)**

### **Major Program ERMAJ1056**

7.0 credits are required, including at least 2.0 300/400 level courses.

*First Year:* FRE180Y

*Second Year:* FSL280Y (or equivalent), JFI225Y, recommended enrolment in either FRE240Y or FRE272Y

*Third & Fourth Year:* 3.0 further courses in French, at least 1.0 of which must be chosen from among the 300/400 level courses, and at least 2.0 of which must be in Teaching and Learning (Group E - French program).

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## **Language Teaching and Learning: French and Italian (Arts)**

### **Specialist Program ERSPE1092**

Within an Honours degree, 14.0 credits are required. The program must include a minimum of 4.0 300/400 level credits (2.0 in French and 2.0 in Italian), 1.0 credit at the 400 level (either in French or Italian), and a shared core introductory course, JFI225Y, taught in English.

#### **French**

7.0 credits are required.

*First Year:* FRE180Y (or equivalent) or permission of the Department.

*Higher Years:*

1. JFI225Y; FRE240Y/272Y, 280Y (or equivalent)
2. 3.0 additional credits, including 1.0 credit in Teaching and Learning (Group E - French program)

#### **Italian**

7.0 credits are required.

*First Year:* ITA100Y. If students have already taken grade 12 or OAC Italian (or equivalent), or if the course is waived, they automatically go to higher years and choose one extra course from the courses offered there.

*Higher Years:*

1. ITA200Y (or equivalent or permission of the Department), 350Y
2. JFI225Y
3. 2.0 credits from ITA375H, 396H, 437H; JFI388Y, 488H
4. 1.0 credit in Italian literature.

## Geographical Information Systems (Science)

### Faculty Coordinator:

Professor Ferenc Csillag (Geography)  
 (905) 828-3862  
 fcs@eratos.erin.utoronto.ca

Geographical Information Systems (GIS) combines spatial information and analysis within the context of various disciplines. These include Geography, Geology, Biology, Physics, Environmental Science, Environmental Management, Computer Science, Statistics and a broadening field of social sciences. The curriculum serves students with interests in mapping, monitoring and modelling—thus a better understanding of the earth surface, its resources, and its natural and social processes.

The Major in Geographical Information Systems is multidisciplinary, with a broadening field of options. Students are encouraged to take it in conjunction with a second Major program.

### Major Program ERMAJ0305

7.0 credits are required, including at least 3.0 at the 300/400 level.

*First Year:* 2.0 credits: GGR117Y/  
 ENV100Y; MAT132Y/138Y/(CSC108H,  
 148H)

*Second Year:* 2.0 credits: GGR(214H/  
 217H, 227H)/228Y, 261H, 276H

*Third and Fourth Year:* 3.0 credits from the following: GGR303H, 311H, 321H, 337H, 372H, 375H, 394H, 463H, 488H

### Minor Program ERMIN0305

4.0 credits are required, including at least 1.5 at the 300/400 level.

*First Year:* 1.0 credit: GGR117Y/ENV100Y  
*Second Year:* 1.5 credits: GGR(214H/  
 217H, 227H)/228Y, 261H

*Third and Fourth Year:* 1.5 credits from the following: GGR303H, 311H, 321H, 337H, 372H, 375H, 394H, 463H, 488H

## Geography (Arts)

### Faculty Coordinator:

Professor Thomas F. McIlwraith  
 (905) 828-5314  
 tmcilwra@eratos.erin.utoronto.ca

### Specialist Program ERSPE1666

Within an Honours degree, 10.0 credits are required including at least 4.0 at the 300/400 level of which at least 1.0 must be 400 level.

1. Geography courses required:

*First Year:* GGR117Y

*Second Year:* 3.0 credits as follows:  
 GGR214H/ 217H, 227H, 228Y, 261H,  
 276H

*Third Year:* 2.0 credits from the following: GGR311H, 315H, 319H, 329H, 337H, 341H, 349H, 355H, 375H

*Fourth Year:* GGR417Y

2. MAT132Y/138Y/PHL100Y/(STA220H, 221H) or (for students who have an OAC Mathematics course) 1.0 credit from BIO, CHM, ERS, MAT or PHY.
3. 2.0 credits from the list of GGR "non-science" courses, as described in the Geography Course Descriptions section of this Calendar.

### Major Program ERMAJ1666

7.0 credits are required, including at least 2.0 at the 300/400 level.

1. Geography courses required:

*First Year:* GGR117Y

*Second Year:* 3.0 credits as follows:  
 GGR214H/217H, 227H, 228Y, 261H,  
 276H

*Third Year:* 0.5 credit from the list of GGR "non-science" courses, as described in the Geography Course Descriptions Section of this Calendar and 1.5 credits from the following: GGR311H, 315H, 319H, 329H, 337H, 341H, 349H, 355H, 375H.

2. MAT132Y/138Y/PHL100Y/(STA220H, 221H) or (for students who have an OAC Mathematics course) 1.0 credit from BIO, CHM, ERS, MAT or PHY.

### Minor Program ERMIN1666

4.0 credits are required, including at least 1.0 at the 300/400 level.

*First Year:* GGR117Y

*Second Year:*

1. GGR228Y

# PROGRAMS

2. 2.0 credits from the list of GGR "non-science" courses, as described in the Geography Course Descriptions section of this Calendar.

## Geography (Science)

### Faculty Coordinator:

Professor D. Scott Munro  
(905) 828-3929  
smunro@eratos.erin.utoronto.ca

### Specialist Program ERSPE2070

Within an Honours degree, 12.0 credits are required including at least 4.0 at the 300/400 level of which at least 1.0 must be 400 level.

1. *First Year:* GGR117Y; MAT132Y/138Y/ (CSC108H, 148H)/(STA220H, 221H)
2. *Second Year:* 3.0 credits as follows:  
GGR214H/217H, 227H, 228Y, 261H, 276H
3. *Third Year:* 2.0 credits from the following: GGR311H, 315H, 319H, 329H, 337H, 341H, 349H, 355H, 375H.
4. *Fourth Year:* GGR417Y
5. *Second Year:* 2.0 credits including at least 0.5 at the 300/400 level from the list of GGR science courses as described in the Geography Course Descriptions section of this Calendar.
6. 2.0 credits from BIO, CHM, ERS, PHY.

### Major Program ERMAJ2070

7.0 credits are required including at least 2.0 at the 300/400 level.

*First Year:* GGR117Y; MAT132Y/138Y/ (CSC108H, 148H)/(STA220H, 221H)

*Second Year:* 3.0 credits as follows:

GGR214H/217H, 227H, 228Y, 261H, 276H

*Third Year:* 0.5 credit from the list of GGR Science Courses as described in the Geography Course Descriptions Section of this Calendar and 1.5 credits from the following: GGR311H, 315H, 319H, 329H, 337H, 341H, 349H, 355H, 375H.

### Minor Program ERMIN2070

4.0 credits are required, including at least 1.0 at the 300/400 level.

1. *First Year:* GGR117Y
2. *Second Year:* GGR214H/217H, 227H
3. 2.0 additional credits from the list of GGR Science courses as described in the

Geography Course Descriptions section of this Calendar.

## Geology (Science)

See Earth Science Programs, Geology.

## German Studies (Arts)

Enrolment in the Major program is open to students who have successfully completed four full courses and who have the required competence in German. Students without OAC or equivalent German should arrange their courses in consultation with the Department. Students who have *any* prior experience with German and are taking any GER language course for the first time should contact the German Studies Department for details on placement tests.

### Major Program ERMAJ1400

7.0 credits are required, including at least 3.0 at the 300/400 level. GER100Y may be counted.

1. At least 3.0 credits from GER100Y, 200Y, 300Y, 400Y
2. At least 3.0 credits from GER205H, 305H, 325H, 329H, 335H, 355H, 430H, 434H, 460H
3. GER150H

The following progression is recommended:

*Year 1:* GER100Y, 101H, 150H

*Year 2:* GER200Y, 205H, 305H

*Year 3:* GER300Y, plus 2 of: GER325H, 329H, 335H, 355H

*Year 4:* GER400Y, plus 2 of: GER430H, 434H, 460H (or the 300 level literature courses as required)

Make up the required complement of GER courses from GER351H, 352H, 490H, 491H and/or other approved 300 level literature courses.

### Minor Program ERMIN1400

4.0 credits in German are required, including at least 1.0 at the 300/400 level.

The 4.0 GER credits must form a coherent series and must be approved by the Department before enrolment in the second year.

## History (Arts)

### Specialist Program ERSPE0652

Within an Honours degree, 10.0 credits are required.

**Limited Enrolment**—Students may enrol in the Specialist Program in History after completing at least 4.0 courses, including 2.0 HIS courses with a mark of at least 70% in each.

**First Year:** A 100 level HIS course; in addition, students may take a 200 level HIS course.

**Higher Years:** Additional HIS courses to a total of 10.0, meeting the following requirements:

1. At least 5.0 300/400 level HIS courses, including 2.0 400 level HIS courses.
2. At least 1.0 course from each of three of the following divisions:
  - a) Asia/Africa/Latin America
  - b) Canada and United States
  - c) Europe
  - d) Industry and labour history
  - e) Peace and conflict history
  - f) Social and cultural history
3. At least one pre-modern course\*

#### Notes:

1. Specialists may substitute non-HIS courses taught elsewhere in the Faculty for up to 3.0 of the HIS courses.\*
2. Specialists must take a 100 level HIS course to complete the program.

### Major Program ERMAJ0652

7.0 credits are required.

**First Year:** A 100 level History course; in addition, students may take a 200 level HIS course.

**Higher Years:** Additional HIS courses to a total of 7.0, meeting the following requirements:

1. 1.0 400 level HIS seminar.
2. 2.0 additional 300/400 level HIS courses.
3. 1.0 course from each of three of the following divisions:
  - a) Asia/Africa/Latin America
  - b) Canada and United States
  - c) Europe
  - d) Industry and labour history
  - e) Peace and conflict history
  - f) Social and cultural history
4. 1.0 pre-modern course\*

#### Notes:

1. Majors may substitute non-HIS courses taught elsewhere in the Faculty for up to 2.0 of the HIS courses.\*
2. Majors must take a 100 level HIS course to complete the program.

### Minor Program ERMIN0652

4.0 HIS credits are required, at least 1.0 of which must be a 300/400 level course.

#### Note:

Minors may substitute non-HIS courses taught elsewhere in the Faculty for up to 2.0 of the HIS courses.\*

\*The *History Handbook* identifies substitutions, courses satisfying division requirements and pre-modern courses. It is available from the History Dept., Room 227, North Bldg., (905) 828-3725.

## History and English

See English & History

## History and Political Science (Arts)

### Specialist Program ERSPE1045

Within an Honours degree, 14.0 credits are required.

**Limited Enrolment**—Enrolment in the Specialist Program in History and Political Science is limited.

1. Students enrolling at the end of first year (4.0 credits) must obtain a mark of at least 67% in 1.0 POL course and a mark of at least 70% in 1.0 HIS course and a Cumulative Grade Point Average of 2.00.
2. Students enrolling at the end of second year (8.0 credits) must obtain a mark of at least 70% in each of 2.0 POL courses and a mark of at least 70% in each of 2.0 HIS courses and a Cumulative Grade Point Average of 2.30.

### History

**First Year:** A 100 level HIS course; an additional HIS course at the 100 or 200 level may be taken.

**Higher Years:** Additional HIS courses to a total of at least 7.0 courses from at least two divisions of study. These must include HIS262Y; at least 3.0 courses at the 300/400 level; and at least 1.0 pre-modern course.

# PROGRAMS

2.0 HIS courses must correspond in region or theme to 2.0 of the POL courses chosen.

#### Notes:

1. Specialists must take a 100 level HIS course to complete the program.
2. Specialists may substitute non-HIS courses taught elsewhere in the Faculty for up to 3.0 of the HIS courses.
3. The *History Handbook* identifies substitutions, courses satisfying division requirements and pre-modern courses. It is available from the History Dept., Room 227, North Bldg., (905) 828-3725.

## Political Science

7.0 credits in POL are required, including at least 2.0 300/400 level courses of which 1.0 must be a 400 level course.

- 1.. POL100Y/214Y
2. POL200Y
3. 1.0 course from each of two of the fields listed under requirements for Political Science Specialist program.
4. 3.0 additional POL courses.

Professionals Association of Ontario, and for further study in the area, such as the specialist program in Employment Relations and the Master of Industrial Relations degree offered at the St. George campus. The need for professional training in the field has grown over time as the employment relationship has increased in complexity due to factors such as the increasing diversity of the labour force and new legislative initiatives in employment standards and human rights.

The broad-based study of the employment relationship provided in the Industrial Relations program prepares students for professional careers by providing a theoretical framework, analytical and quantitative skills, and a thorough knowledge of current developments in the field. Students are able to undertake a multi-disciplinary study of the employment relationship, examining it from the perspectives of Economics, History, Sociology and Organizational Theory. This training is intended to provide the basis for life-long learning about emerging issues in the field of employment.

## Major Program ERMAJ1882

A minimum of 6.5 credits are required including at least 2.0 at the 300 level.

**Limited Enrolment**—Enrolment in this program is limited to students who have a cumulative GPA of 2.00 and have already completed two of the following courses: ECO100Y, 244Y, SOC101Y, WDW260H

1. ECO100Y, 244Y; SOC101Y
2. At least 3.5 additional courses selected from the following list. At least 2.0 must be at the 300 level. No more than 2.0 on this list may be selected from the same discipline:  
ECO361Y, 370Y; HIS313Y; SOC207Y, 317Y\*; WDW260H/MGT(262H + 363H)\*\*

#### Notes:

1. \*SOC207Y is a prerequisite for SOC317Y.
2. \*\*Students must meet the Commerce Program G.P.A. requirement in order to enrol in MGT courses.

## Human Communication and Technology

See Communication, Culture and Information Technology

## Industrial Relations (Arts)

#### Faculty Advisors:

- Professor F. Reid (Economics)  
Professor H. Gunz (Management)  
Professor J. Kervin (Sociology)  
Professor L. MacDowell (History)

Interested students should consult:

#### Student Advisor:

- Hala Ali (Economics)  
Room 226, Kaneff Centre  
(905) 828-5404

The Industrial Relations program is designed to prepare students for careers in either human resource management or labour relations. The program also provides a foundation for completion of the Certified Human Resources Professional (CHRP) designation offered by the Human Resources

**International Affairs (Arts)***Faculty Advisor:*

Professor Gordon Anderson  
(Economics)

Interested students should contact:

*Student Advisor:*

Hala Ali (Economics)  
Room 226, Kaneff Centre  
(905) 828-5404

**Specialist Program ERSPE1384**

This program provides background and training in the combination of analytical and linguistic skills demanded of individuals who wish to work in the context of an increasingly globalized economy. A combination of courses are offered that allow the student to acquire full interactive capability in a chosen language, whilst simultaneously studying institutional and theoretical issues pertaining to political, commercial and economic relationships between nations.

Within an Honours degree, 14.0 credits are required, at least 1.0 of which must be at the 400 level.

**Limited Enrolment**—Enrolment in this program is limited to students who have 63% in ECO100Y; one introductory language course and a CGPA of 2.50.

The following 10.0 courses are required in the program: ECO100Y; MAT132Y/133Y/138Y; ECO200Y/206Y, 202Y/208Y, 364H, 365H; POL208Y; 4.0 language courses in the same discipline.

3.0 from: GGR325H, 345H, 365H; HIS311Y; POL302Y, 312Y, 327Y, 340Y, 343Y

1.0 from: ECO460Y/460H; MGT491H; a 400 level language course. The following 400 level St. George courses will also fulfill this requirement: ECO419H, 458H, 459H; POL454Y or a 400 level course from a cognate discipline approved by the Faculty Advisor.

Language components available at UTM:

**French:** FRE180Y; FSL205H/206H/  
FRE290Y; FSL261Y/280Y, 366H, 383H

**German:** GER100Y, 200Y, (300H, 301H)/300Y, (400H, 401H)/370H(G)/370Y(G)

**Italian:** ITA100Y, 200Y, 350Y, and 1.0 credit in Italian Literature selected in consultation with and approved by the Italian Department.

Other St. George language programs must be approved by the Faculty Advisor and the Department concerned.

**Italian (Arts)**

See also Cinema Studies

**Specialist Program ERSPE2524**

Within an Honours degree, 10.0 credits are required including at least 3.0 300/400 level full courses and 1.0 400 level credit.

*First Year:* ITA100Y. If students have taken grade 12 or OAC Italian (or equivalent), or if the course is waived, they automatically go to higher years and choose one extra course from the courses offered there.

*Higher Years:*

1. 3.0 credit from ITA200Y, 350Y, 371Y, 450Y
2. ITA321Y
3. 5.0 additional credits in ITA including those not used in #1 above. At least 3.0 credits must be in Italian literature.

**Major Program ERMAJ2524**

7.0 credits are required including at least 2.0 300/400 level credits.

*First Year:* ITA100Y. If students have already taken grade 12 or OAC Italian (or equivalent), or if the course is waived, they automatically go to higher years and choose one extra course from the courses offered there.

*Higher Years:*

1. 2.0 courses from ITA200Y, 350Y, 371Y, 450Y
2. ITA321Y
3. 3.0 additional credits in ITA including those not used in #1 above. At least 2.0 credits must be in Italian literature.

# PROGRAMS

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## Minor Program ERMIN2524

4.0 ITA credits are required including at least 1.0 300/400 level credit and a literature course.

### Note:

Students intending to pursue graduate studies in Italian at the School of Graduate Studies in Toronto should take 3.0 credits covering three of the main periods of Italian literature (i.e., Middle Ages, the Renaissance, the 17th and 18th centuries, the modern period) and must obtain an overall average of at least B+ in their last two years of study.

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## Italian and French

See French & Italian Combined Specialist

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## Language Teaching and Learning: French and Italian

See Combined Specialist listed with French programs.

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## Language Teaching and Learning: Italian (Arts)

### Major Program ERMAJ1249

7.0 credits are required including at least 2.0 300/400 level credits.

*First Year:* ITA100Y. If students have already taken grade 12 or OAC Italian (or equivalent), or if the course is waived, they automatically go to higher years and choose one extra course from the courses offered there.

*Higher Years:*

1. ITA200Y (or equivalent, or permission of the Department), 350Y
2. JFI225Y
3. 2.0 credits from ITA375H, 396H, 437H; JFI388Y, 488H
4. 1.0 credit in Italian literature.

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## Linguistics (Arts)

### Minor Program ERMIN0506

4.0 credits are required, including at least 1.0 credit at the 300/400 level.

1. LIN100Y/200H.

2. An additional 3.0/3.5 credits (for a total of 4.0 credits) chosen from the following:
  - a) At least two courses from the following list: any LIN or JAL courses; ENG266H; PSY315H, 374H
  - b) The remaining courses to be chosen from those courses not yet taken from the list above, and from the following list: ENG367H; FRE272Y, 273Y, 376H, 378H, 476H, 489H; ITA437H; JFI225Y; PHL350H, 351H

### Note:

Some of the courses listed above have prerequisites not in this program. Students will find that this program is well suited to be combined with programs in the following disciplines: Anthropology, English, French, German, Italian, Philosophy, Psychology.

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## Logic (Arts)

### Faculty Advisor:

TBA

Contact Philosophy Department  
Secretary, (905) 828-3727

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## Major Program ERMAJ1736

6.0 credits are required.

1. CSC148H, 364H (For students in the program, the prerequisite for CSC364H will be satisfied by the combination of CSC148H, MAT222H/248Y, and PHL344H)
2. MAT132Y/138Y, 222H/248Y and an additional 0.5 credit at 300 level in MAT or CSC
3. PHL245H, 344H, 345H
4. Three of PHL246H, 346H, 347H, 350H, 351H, 355H, 356H, 451H

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## Management (Arts)

### Major Program ERMAJ2431

#### Note:

This program must be taken as part of an Honours degree.

8.5 credits are required to be taken with another Major, which can be in any area EXCEPT Commerce, Economics, Industrial Relations, or Employment Relations (G).

**Limited Enrolment**—Enrolment in this program is limited to students who meet the following criteria:

**1. Prerequisite courses**

MGM101H(63%), MGM102H(63%); ECO100Y(63%) in a minimum of 4.0 courses.

**2. Cumulative Grade Point Average (CGPA)**

Each year the Management Department sets a minimum required CGPA. This will vary from year to year and is based, in part, on supply and demand.

- 3.** Applicants may be asked to provide further information about themselves, including their reasons for wishing to take the program and how they see it contributing to their education and career.

**Application** for admission to the program for September is normally made in April of that year. Contact Management Department for **dates**.

**Note: RE - Transfer Students**

Students who have attended another post-secondary institution, or another Faculty within the University of Toronto (including U. of T. at Scarborough), and who wish to enter the Management Major program, must apply through the Office of Admissions and Awards.

**1. Transfer credit requirements**

MGM101H, 102H; ECO100Y C+ (67%)

**2. Have obtained at least 4.0 transfer credits on admission to the Faculty**

**3. Minimum overall average on admission: B+ (77%)**

**Tuition fees for students enrolled in the Management Major are higher than for other Arts and Science programs.**

*Enrolment in 200+ level MGM courses is restricted to students who are registered in the Management Major program.*

**1. First year prerequisites (2.0 credits):**

MGM101H, 102H; ECO100Y

**2. Core courses (1.5 credits):**

MGM200H, 300H/362H, 400H

**3. Management Disciplines (3.0 credits):**

MGM221H, 222H, 230H, 252H, 290H, 371H

**4. Statistics (1.0 credit):**

STA(220H, 221H)/BIO(360H, 361H)/  
PSY(201H, 202H)/SOC300Y

**5. Electives (select 1.0 credit):**

MGM320H, 332H; MGT353H, 363H, 492H

**Notes:**

1. The Management Major must be taken with another Major. Students **cannot** combine the Management Major with the Major Program in Commerce, Economics, Industrial Relations, or Employment Relations (G); or the Minor program in Economics; or the Specialist Program in Commerce and Finance (B.Com.).
2. **The Program requirements in effect at the time the students are admitted to the program must be met in order to fulfill the Degree requirements.**

## Mathematical Sciences (Science)

**Specialist Program ERSPE2511**

Within an Honours degree, 13.0 credits are required.

**Limited Enrolment**—Enrolment in the Specialist program is limited to students with 60% in MAT102H and 60% in MAT132Y/138Y.

**First Year:** CSC108H, 148H; MAT102H, 138Y; STA107H

**Second Year:**

CSC207H/209H/236H/260H/263H/270H; MAT248Y, 258Y; STA248H, 257H

**Third Year:** MAT315H, 378H

**Third & Fourth Years:**

- a) MAT309H, 311H, 334H, 344H, 368H
- b) 1.0 credit at the 400 level in MAT.
- c) 2.0 additional credits at the 300+ level in APM/ACT/CSC/MAT/STA. Good choices for this requirement include CSC350H, 354H and STA302H

**Notes:**

1. The combination MAT(132Y, 232H) may be substituted for MAT138Y.
2. At most, two of the following courses may be used in partial fulfillment of requirement c) above: ACT240H, 247H, CSC207H, 209H, 236H, 260H, 263H, 270H; PHL245H

# PROGRAMS

**Major Program ERMAJ2511**  
7.5 credits are required.

**Limited Enrolment**—Enrolment in the Major program is limited to students with 60% in MAT102H and 60% in MAT132Y/138Y.

*First Year:* MAT102H, 138Y

*Second Year:* MAT248Y, 258Y

*Higher Years:* MAT309H, 311H, 315H, 334H, 344H, 368H, 378H, PHL245H/0.5  
MAT credit at the 200+ level.

**Note:**

The combination MAT(132Y, 232H) may be substituted for MAT138Y.

**Minor Program ERMIN2511**

4.0 credits in MAT are required, including 1.0 MAT credit at the 300+ level. PHL245H may be included.

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## Molecular Biology (Science)

See Biology Programs, Molecular Biology.

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## Paleontology (Science)

*Program Advisors:*

Dr. David Dilkes (Biology)

(905) 828-5366

[ddilkes@utm.utoronto.ca](mailto:ddilkes@utm.utoronto.ca)

Professor H. Halls (Earth Science)

(905) 828-5363

Paleontology is the study of the extinct and extant inhabitants of the Earth, in the context of Earth history. It is a unique historical science that combines the strengths of biology and geology. Paleontology is suited ideally for the study of life across all time scales; the form and development of past environments and their impact upon the evolution of species; the evolution of ecological relationships; the origin of new species; and the phylogenetic relationships among species. The science of paleontology is also relevant to the modern problems of climatic change and species extinction because the data provided by the fossil record are vital for models attempting to predict the responses of species to climatic change.

The Major Program illustrates the interdisciplinary nature of paleontology by combining core courses in Earth Sciences and Biology in the first, second and third years. During the fourth year, the student of paleontology can select from a variety of courses in Biology, Earth Science, and Anthropology that reflect the interests of the student. In addition, an internship course in paleontology that will combine instruction and practical application in a museum and field experience at an active paleontological site will be available to the student in the fourth year.

**Major Program ERMAJ1004**

**Note:**

This program must be taken as part of an Honours degree.

Enrolment in a second Major Program is required. Biology, Earth Science, and Anthropology are recommended, but a major in a different program is possible with approval of the Program Advisor.

8.0 credits are required.

*First Year:* BIO151Y/(BIO152H, 153H); CHM140Y; MAT132Y/138Y; ENV100Y/ ERS120H

*Second Year:* ERS201H, 202H, 203H; GLG217H(G)

*Third Year and Fourth Year:* ERS325H; BIO319H/354H, 356H, 360H; GLG360H(G)

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## Performance and Theatre

See Drama

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## Philosophy (Arts)

**Specialist Program ERSPE0231**

Within an Honours degree, 9.0 credits in Philosophy are required, including at least 4.0 credits at the 300/400 level of which 1.0 must be at the 400 level.

**Limited Enrolment**—Enrolment in the Specialist Program in Philosophy is limited to students who have completed 4.0 credits including 2.0 PHL credits with a mark of at least 70% in each.

The program must include the following courses:

1. PHL200Y, 210Y, 0.5 credit in history of Philosophy
2. PHL245H; 0.5 credit from: PHL246H, 247H, 344H, 345H, 346H, 347H
3. PHL277Y
4. 2.0 credits from: PHL252H, 332H, 333H, 340H, 341H, 350H, 355H, 451H

In addition, it is strongly recommended that students begin their study of Philosophy with a 100 level course. A student's program must be approved by the staff Specialist Coordinator. This program will normally be established by the end of the student's second year and confirmed at registration in subsequent years.

**Major Program ERMAJ0231**

7.0 credits in Philosophy are required, including at least 2.0 credits at the 300/400 level. The program must include the following courses:

1. PHL200Y, 210Y
2. PHL245H
3. PHL277Y
4. 1.0 credit from: PHL246H, 252H, 325H, 332H, 333H, 340H, 341H, 344H, 345H, 346H, 347H, 350H, 355H, 451H

In addition, it is strongly recommended that students begin their study of Philosophy with a 100 level course. A student's program must be approved by the staff Specialist coordinator. This program will normally be established by the end of the Student's second year and confirmed at registration in subsequent years.

**Minor Program ERMIN0231**

4.0 credits in Philosophy are required, including at least 1.0 at the 300/400 level.

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**Philosophy of Science (Arts)**

Consult Department of Philosophy

**Minor Program ERMIN1370**

4.0 credits are required including at least 1.0 at the 300/400 level.

*First Year:* PHL100Y

*First or Second Year:* 1.5 from AST101H, 201H, PHY205H, 206H

*Second Year:* PHL252H

*Third Year:* PHL342H, 355H

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**Philosophy, Political Science and Economics (Arts)****Specialist Program ERSPE0101**

Within an Honours degree, 15.0 credits are required including at least 4.0 at the 300/400 level of which at least 1.0 must be at the 400 level.

**Limited Enrolment**—Enrolment in this program is limited. Students enrolling at the end of first year (4.0 credits) must obtain:  
1. a mark of at least 67% in 1.0 POL course and at least 63% in ECO100Y, and a minimum Cumulative Grade Point Average of 2.00.

OR

2. a mark of at least 67% in 1.0 POL course and at least 50% in ECO100Y, and a minimum Cumulative Grade Point Average of 2.50.

Students enrolling at the end of second year (8.0 credits) must obtain:

1. a mark of at least 70% in each of 2.0 POL courses and at least 63% in ECO100Y, and a minimum Cumulative Grade Point Average of 2.30.

OR

2. a mark of at least 70% in each of 2.0 POL courses and at least 50% in ECO100Y, and a minimum Cumulative Grade Point Average of 2.50.

This is a combined specialist program in the major disciplines: Philosophy, Political Science and Economics. The program must include an area of major study to be selected from (A) and two areas of minor study to be selected from (B).

(A) Students must choose one of the following for their major area of study (1.0 credit at the 400 level must be included from this area):

**Economics:**

ECO100Y; MAT132Y/133Y/138Y

ECO200Y, 202Y, 322Y

Either ECO220Y + 1.0 additional ECO course at the 300+ level OR ECO303Y + 323Y

# PROGRAMS

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or

**Philosophy:**

PHL210Y, 245H, 271H, 277Y, 365H, 375H, 370H

1.5 additional PHL courses at the 200+ level including at least 0.5 at the 300 level

or

**Political Science:**

POL200Y, 320Y, 309Y

3.0 additional POL courses, including no more than 1.0 at the 100 level, and including at least 1.0 course from each of two of the fields listed under the requirements for the Political Science Specialist program.

(B) Students must choose two of the following minor areas (excluding the discipline selected for the major area of study):

**Economics:**

ECO100Y; MAT132Y/133Y/138Y

ECO200Y, 202Y, 322Y

or

**Philosophy:**

PHL245H, 271H, 277Y, 370H, 375H

1.0 additional PHL course at the 200+ level

or

**Political Science:**

POL200Y, 320Y, 309Y

1.0 additional POL course at the 200+ level

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## Physical Science (Science)

Consult Department of Physics

**Specialist Program ERSPE1260**

**Note:**

Starting in 2000-2001, no new students were admitted to this program.

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## Physics (Science)

**Major Program ERMAJ1944**

7.5 credits are required including at least 2.0 at the 300/400 level.

*First Year:* PHY135Y(minimum 70%)/137Y; MAT132Y or equivalent

*Second Year:* PHY224H, 235H/237H/335H, 241H, 245H; MAT212H/258Y, 232H

*Third/Fourth Year:* PHY324H, 341H, JCP321H, and 1.0 credit from PHY344H, 345H; JCP322H; MAT311H

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## Minor Program ERMIN1944

4.0 credits are required including at least 1.0 at the 300/400 level.

*First Year:* PHY135Y/137Y

*Second Year:* PHY224H, 241H, 245H

*Third/Fourth Year:* JCP321H and 1.0 credit from PHY235H/335H, 237H, 341H, 344H, 345H; JCP322H

**Note:**

Students interested in an Honours degree, specializing in Physics, and who have 4.0 credits at UTM including PHY135Y/137Y; CHM140Y; MAT132Y or equivalent, and MAT222H, should consult with the Department and consider enrolling in the Physics Specialist program (ASSPE1944) on the St. George Campus of the University.

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## Physics and Philosophy

See Philosophy, Minor program in the **Philosophy of Science**.

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## Physiology

See Biology Programs, **Comparative Physiology**.

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## Political Science (Arts)

Enrolment in Political Science Specialist, Major and Combined Specialist programs is limited.

**Specialist Program ERSPE2015**

Within an Honours degree, 10.0-12.0 POL credits are required including 4.0 300/400 level credits of which at least 2.0 must be 400 level courses.

**Limited Enrolment**—Students enrolling at the end of first year (4.0 credits) must obtain a CGPA of at least 2.00 and a mark of at least 67% in 1.0 POL course. Students applying to enrol after second year (8.0 credits) must obtain a CGPA of at least 2.30 and a mark of at least 70% in each of 2.0 POL courses.

1. POL100Y/214Y
2. POL200Y, 320Y
3. 1.0 full course from each of three of the following fields:

- a) Comparative Politics (Developing) - POL201Y
  - b) Comparative Politics (Industrial) - POL203Y, 204Y, 205Y, 300Y, 302Y, 307Y, 309Y, 321Y, 322Y, 332Y, 440Y, 443H, 438H, 449Y
  - c) International Relations - POL208Y, 310Y, 312Y, 327Y, 328Y, 340Y, 343Y, 486Y
  - d) Public Policy and Public Administration - POL209Y, 300Y, 309Y, 317Y
4. 4.0 additional POL courses
5. *Recommended:* ECO100Y.

### Major Program ERMAJ2015

7.0-8.0 POL credits are required including at least 2.0 300/400 level courses.

**Limited Enrolment**—Students enrolling at the end of first year (4.0 credits) must obtain a CGPA of at least 2.00 and a mark of at least 65% in 1.0 POL course. Students applying to enrol after second year (8.0 credits) must obtain a CGPA of at least 2.30 and a mark of at least 70% in each of 2.0 POL courses.

1. POL100Y/214Y
2. POL200Y
3. 1.0 credit from each of two of the following fields:
  - a) Comparative Politics (Developing)
  - b) Comparative Politics (Industrial)
  - c) International Relations
  - d) Public Policy and Public AdministrationFor field designation of courses, see listings under requirements for Political Science Specialist Program.
4. 3.0 additional POL courses

### Minor Program ERMIN2015

4.0 POL credits are required including at least 1.0 300/400 level course and no more than 1.0 at the 100 level.

### Political Science and Economics

See Economics and Political Science.

### Political Science and History

See History and Political Science.

## Political Science and Philosophy and Economics

See Philosophy, Political Science and Economics.

## Professional Writing and Communication (Arts)

### Coordinator:

G. Allen  
Room 253, Kaneff Centre  
(905) 828-3900  
guy.allen@utoronto.ca

### Major Program ERMAJ1302

This program must be taken as part of an Honours degree. The Professional Writing and Communication Major must be combined with another major or specialist.

The program requires 8.0 credits, including at least 2.0 at the 300/400 level.

1. 4.5 – 7.0 WRI/CCT credits from program courses
2. At most, 2.0 credits from non-program courses listed below.

Non-program courses:  
ANT204Y Social and Cultural Anthropology  
ANT206H Culture and Communication  
ANT401H Visual Communication  
ANT405Y Technology, Society and Culture  
ANT461Y Theory in Social and Cultural Anthropology  
CLA201H Latin and Greek in Scientific Terminology  
LIN200H Introduction to Language  
LIN203H English Words Through Time and Space  
LIN204H English Grammar  
JAL253H Language and Society  
JAL355H Language and Gender  
PHL247H Rhetoric and Reasoning  
PHL350H Philosophy and Theories of Language

PSY315H Language Acquisition  
PSY374H Psychology of Language  
SOC252Y Introduction to Communication Theory and Research  
SOC309Y Sociology of Mass Communication

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3. At most, 2.0 credits of approved writing-intensive courses from any discipline at the 200 level or higher.

Students in this program will be admitted to limited enrolment courses on the same basis as BIO and PSY Specialists.

## Minor Program ERMIN1302

4.0 credits are required including at least 1.0 at the 300/400 level:

1. 2.0 - 4.0 WRI credits;
2. Up to 2.0 credits of approved writing-intensive courses from any discipline at the 200 level or above.

### Note on writing-intensive courses:

To count a writing-intensive course toward the completion of the Professional Writing and Communication Major or Minor, students must submit to the Program Coordinator evidence that 50% or more of the course final mark is based on written and/or oral presentation work. Students usually submit a copy of the course syllabus or a letter from the course instructor.

*First Year:* BIO151Y/(152H, 153H);

PSY100Y

*Higher Years:* CHM140Y; MAT132Y/138Y; BIO203H/207H, 204H, 205H, 318Y, 360H, 361H; PSY252H, 260H/351H/360H, 290H; BIO304H/PSY399H; BIO481Y/PSY400Y; one additional 0.5 credit in BIO or PSY at the 300/400 level

## Exceptionality in Human Learning (Science)

*Program Director and Undergraduate Advisor:*

Dr. Stuart Kamenetsky  
Room 2075, South Bldg.  
(905) 828-3958

This program is designed to provide a broad foundation for students who may have a vocational, academic, and/or civic interest in issues concerning children and adults who have disabilities and/or who are gifted. Interested students might include:

- a) those who at a later stage may wish to pursue more advanced work in psychology, special education, rehabilitation, social work, group home management, adult retraining, etc., or study in areas related to hearing or visual impairment, learning disabilities, developmental delay, physical disability, or related fields.
- b) those wanting to know more about the Psychology, Sociology and Biology of exceptional individuals, particularly as these become issues of public policy.

## Specialist Program ERSPE2475

Within an Honours degree, 11.0 credits are required, including at least 3.0 300/400 level and 1.0 400 level credit.

**Limited Enrolment**—Enrolment in this program is limited to students who have:

- a) any OAC Mathematics/Gr.12(4U) Mathematics (Students without one of these, consult PSY Department.);
- b) 4.0 completed credits;
- c) a grade of at least 75% in PSY100Y;
- d) a grade of at least 75% in 1.0 credit in Biology; and
- e) a minimum CGPA of 2.70.

Within an Honours degree, 13.0 credits are required, including at least 3.5 300/400 level courses and 1.5 400 level courses.

**Limited Enrolment**—Enrolment is limited to students who have:

- a) any OAC Mathematics/Gr.12(4U) Mathematics (students without one of these, consult PSY Department);
- b) 4.0 completed credits;
- c) grade of at least 75% in PSY100Y;
- d) successful completion of 1.0 credit from ANT100Y/(101H, 102H)/SOC101Y/BIO151Y/(152H, 153H)/204H/205H/206H/207H; and
- e) a minimum CGPA of 2.70.

Meeting the minimum grade requirements does not guarantee admission. Students not initially meeting these requirements may be admissible after meeting the second-year requirements. Further information is available on the Psychology Department web site. Refer to UTM web site: [www.utm.utoronto.ca](http://www.utm.utoronto.ca)

**First Year:** PSY100Y; SOC101Y/ANT100Y/(101H, 102H)/BIO151Y/(152H, 153H)/1.0 credit from BIO204H, 205H, 206H, 207H

**Higher Years:**

1. PSY201H (or equivalent), 210H, 213H, 442Y
2. 0.5 credit from the following: PSY202H (or equivalent), 240H, 270H, 280H, 290H, 295H
3. 3.0 credits from the following:  
PSY311H, 312H, 315H, 316H, 318H, 319H, 321H, 325H, 331H, 333H, 340H, 341H, 343H, 344H, 346H, 374H, 385H, 393H
4. at least 0.5 credit from the following: PSY400Y, 403H, 404H, 405H, 406H, 410H, 415H, 440H, 495H.
5. 2.0 credits from one of the following lists:
  - a) ANT203Y, 204Y, 241Y, 304Y, 331Y, 332Y, 334Y, 339Y, 434H, 439Y
  - b) SOC210Y, 211H, 214Y, 215Y, 301Y, 303H, 305H, 307H, 311Y, 318Y, 319Y, 332H, 333H, 346Y, 365H, 368H, 371H
  - c) BIO204H, 205H, 206H, 207H, 210H, 215H, 304H, 310H, 315H, 341H, 370Y, 380H, 407H, 422H, 442H, 443H, 452H, 464H, 475H, 477H; JBC372H; ANT203Y, 331Y, 332Y, 334Y, 339Y, PSL201Y(G)

6. 2.5 additional credits to be selected from the following (no more than 1.0 credit from any one discipline):

ANT Any course in 5 a) not counted previously

SOC Any course in 5 b) not counted previously

BIO Any course in 5 c) not counted previously

CCT326H, 379H

CHM240Y/(241H, 261H)/(242H, 243H), 341H, 345H, 347H.

ENG234H

HIS308Y, 360Y

LIN100Y, 200H, 415H(G)

JAL253H, 254H(G), 355H, 372H

JFI225Y

JLP471H(G)

JLS474H(G)

PHL241H, 243H, 244H, 255H, 267H, 271H, 272H, 274H, 277Y, 283H, 290H, 350H, 355H, 382H

RLG105Y, 309Y

SCI398Y, 499H

#### **Major Program ERMAJ1883**

7.0 credits are required; including at least 2.0 300/400 level courses

**Limited Enrolment**—Enrolment in this program is limited to students who have:

- a) any OAC Mathematics/Gr.12(4U) Mathematics (students without one of these, consult PSY Department);
- b) 4.0 completed credits;
- c) a grade of at least 63% in PSY100Y;
- d) successful completion of 1.0 credit from BIO151Y/(152H, 153H)/204H/205H/206H/207H; and
- e) a minimum CGPA of 2.00.

Students not initially meeting these requirements may be admissible after meeting the second-year requirements. Further information is available on the Psychology Department web site.

Refer to UTM web site:

[www.utm.utoronto.ca](http://www.utm.utoronto.ca)

**First Year:** PSY100Y; 1.0 credit from BIO151Y/(152H, 153H), 204H, 205H, 206H, 207H

**Higher Years:**

1. PSY201H (or equivalent), 210H, 213H
2. 2.5 credits from the following:  
PSY311H, 312H, 315H, 316H, 318H,

# PROGRAMS

- 319H, 321H, 325H, 331H, 333H, 340H, 341H, 343H, 344H, 345H, 346H, 374H, 385H, 393H
3. 1.0 additional credit from ANT203Y, 331Y, 332Y, 334Y, 339Y; BIO204H, 205H, 206H, 207H, 210H, 215H, 304H, 310H, 315H, 341H, 356H, 370Y, 380H, 407H, 422H, 442H, 443H, 452H, 464H, 475H, 477H; JBC372H; PSL201Y(G), 302Y(G)

## Psychology (Science)

### Specialist Program ERSPE1160

Within an Honours degree, at least 10.0 credits in Psychology are required. At least 5.0 credits must be at the 300/400 level. A single course can be used to satisfy only one program requirement.

**Limited Enrolment**—Enrolment in this program is limited to students who have:

- a) any OAC Mathematics/Gr.12(4U) Mathematics (students without one of these, consult PSY Department);
- b) 4.0 completed credits;
- c) a grade of at least B+ in PSY100Y; and
- d) a minimum CGPA of 3.0.

Students not initially meeting these requirements may be admissible after meeting the second-year requirements. Further information is available on the Psychology Department web site. Refer to UTM web site: [www.utm.utoronto.ca](http://www.utm.utoronto.ca)

#### First Year:

1. PSY100Y

#### Second Year:

2. (PSY201H, 202H)/ ECO220Y/ 227Y/ (STA220H, 221H)/(BIO360H, 361H)

3. 2.5 credits from the following courses: 0.5 credit must be taken from each of the following groups and one additional 0.5 credit from groups a) or b)

a) Biological Bases of Behaviour:

PSY252H, 290H, 295H

b) Cognitive/Perception:

PSY270H, 280H

c) Social/Personality/Abnormal:

PSY220H, 230H, 240H

d) Developmental:

PSY210H, 213H

#### Third Year:

4. PSY309H

- 5. One laboratory course from the following:  
PSY319H, 329H, 379H, 399H
- 6. 2.5 credits from the following courses: 0.5 credit must be taken from each group:
  - a) Biological Bases of Behaviour:  
PSY318H, 346H, 351H, 357H, 362H, 372H/397H, 393H, 395H, 398H; BIO304H, 310H, 318Y, 328H
  - b) Cognitive/Perception:  
CCT316H, 326H, 371H, 379H; PSY312H, 315H, 316H, 331H, 351H, 360H, 362H, 372H, 374H, 385H, 393H, 397H
  - c) Developmental/ Abnormal/ Social/ Personality:  
CCT316H, 326H;  
PSY311H, 312H, 315H, 316H, 318H, 320H, 321H, 325H, 327H, 331H, 332H/343H, 333H, 340H, 341H, 344H, 345H, 346H;

#### Fourth Year:

- 7. PSY400Y/403H/404H/405H/406H
- 8. one of the following:  
PSY402H, 410H, 415H, 420H, 430H, 440H, 442Y, 471H, 480H, 490H, 495H; BIO418H, 434H

### Major Program ERMAJ1160

6.5 credits in Psychology are required including 2.0 at the 300/400 level. A single course can be used to satisfy only one program requirement.

**Limited Enrolment**—Enrolment in this program is limited to students who have:

- a) any OAC Mathematics/Gr.12(4U) Mathematics (students without one of these, consult PSY Department);
- b) 4.0 completed credits;
- c) a grade of at least 63% in PSY100Y; and
- d) a minimum CGPA of 2.0.

Students not initially meeting these requirements may be admissible after meeting the second-year requirements. Further information is available on the Psychology Department web site. Refer to UTM web site: [www.utm.utoronto.ca](http://www.utm.utoronto.ca)

#### First Year:

1. PSY100Y

#### Higher Years:

2. PSY201H/ECO220Y/227Y/ STA220H/BIO360H/SOC300Y

3. 2.5 credits from the following courses:  
0.5 credit must be taken from each group:
  - a) Biological Bases of Behaviour: PSY252H, 290H, 295H
  - b) Cognitive/Perception: PSY270H, 280H
  - c) Social/Personality/Abnormal: PSY220H, 230H, 240H
  - d) Developmental: PSY210H, 213H
4. 1.5 credits from the following courses:  
0.5 credit must be taken from each group:
  - a) Biological Bases of Behaviour: PSY318H, 346H, 351H, 357H, 362H, 372H/397H, 393H, 395H, 398H; BIO304H, 310H, 318Y, 328H
  - b) Cognitive/Perception: CCT316H, 326H, 371H, 379H; PSY312H, 315H, 316H, 331H, 351H, 360H, 362H, 372H, 397H, 374H, 385H, 393H
  - c) Developmental/Abnormal/Social/Personality: CCT316H, 326H; PSY311H, 312H, 315H, 316H, 318H, 320H, 321H, 325H, 327H, 331H, 332H/343H, 333H, 340H, 341H, 344H, 345H, 346H
5. 1.0 additional credit in Psychology. At least 0.5 must be at the 300/400 level

#### **Minor Program ERMIN1160**

4.0 credits are required, including 1.0 at the 300 level.

**Limited Enrolment**—Enrolment in this program is limited to student who have:

- a) any OAC Mathematics/Gr.12(4U) Mathematics (students without one of these, consult PSY Department);
- b) 4.0 completed credits;
- c) a grade of at least 63% in PSY 100Y; and
- d) a minimum CGPA of 2.0

Students not initially meeting these requirements may be admissible after meeting the second-year requirements. Further information is available on the Psychology Department web site. Refer to UTM web site: [www.utm.utoronto.ca](http://www.utm.utoronto.ca)

#### *First Year:*

1. PSY100Y

#### *Higher Years:*

2. PSY201H/STA220H/ECO220Y/227Y/SOC 300Y
3. 1.5 credits from the following courses:  
0.5 credit must be taken from each group:
  - a) Biological Bases of Behaviour: PSY252H, 290H, 295H
  - b) Cognitive/Perception: PSY270H, 280H
  - c) Developmental/Abnormal/Social/Personality: PSY210H, 213H, 220H, 230H, 240H
4. 1.0 credit in PSY at the 300 level including: CCT316H, 326H, 371H, 379H

#### *Notes:*

1. Enrolment in all programs offered by the Psychology Department is limited. To obtain permission see the Undergraduate Advisor in Room 2075. Students who do **NOT** earn a sufficiently high grade in PSY100Y to be eligible for enrolment may reapply when they satisfy the second-year requirements. Further information is available on the Psychology Department web site. Refer to UTM web site: [www.utm.utoronto.ca](http://www.utm.utoronto.ca)
2. **Access to courses.** PSY309H, 319H, 329H, 379H, 399H and all 400 level courses have limited enrolments and are normally restricted. Access to all other 300 level courses will be controlled by the Department. Priority is given to students enrolled in programs offered by the Psychology Department. Spaces are allotted on the basis of CGPA. Highest priority is given to students enrolled in one of the Specialist Programs. Consult the UTM Registration Guide (available at [www.utm.utoronto.ca](http://www.utm.utoronto.ca)) for specific information.
3. Students may take no more than 2.0 credits in Individual Project or Thesis courses.
4. **UTM students who wish to take Psychology courses at the St. George Campus** may do so provided that they have completed the prerequisite courses and they have obtained permission from the Psychology Undergraduate Advisor at the St. George Campus. Without such prerequisites, registration in a course

# PROGRAMS

may be cancelled at any time. If they wish to use these courses to fulfill UTM program requirements, they must consult the Undergraduate Advisor at UTM.

## Religion (Arts)

### Specialist Program ERSPE0151

Within an Honours degree, 10.0 RLG credits are required.

*First Year:* RLG100Y/280Y

*Higher Years:*

1. RLG201Y(G)/210Y(G)/211Y(G)/212Y(G)
2. 4.0 300/400 level credits (including 1.0 at the 400 level)
3. 4.0 other credits, no more than 2.0 of which may be from cognate disciplines.
4. Course selection must ensure that more than one religious tradition is studied (RLG100Y/280Y does not fulfill this requirement).
5. Course selection must ensure depth of study and focus in one area or stream of specialization.
6. A RLG Faculty Advisor must be chosen to assist in designing a coherent program and to review annually the student's course selections.

### Major Program ERMAJ0151

6.0 RLG credits are required.

*First Year:* RLG100Y/280Y

*Higher Years:*

1. RLG105Y/206Y/242Y/a St. George equivalent course on a religious tradition or methods in the study of religion
2. 4.0 other credits, 1.0 of which may be from a cognate discipline (list is included in the departmental brochure) and 2.0 of which must be at the 300/400 level
3. A RLG faculty advisor must be chosen to assist in designing a coherent program and to review annually the student's course selections

### Minor Program ERMIN0151

4.0 RLG credits are required.

*First Year:* RLG100Y/280Y

*Higher Years:*

1. 1.0 300/400 level course
2. 2.0 other courses, neither of which may be from cognate disciplines

## Science Education (Science)

*Faculty Advisor:*

Professor J. Percy  
Room 4046, South Bldg.  
(905) 828-5351

*Office hours:* By appointment

### Minor Program ERMIN0307

Enrolment in this program requires concurrent enrolment in a science major/specialist program. Please check prerequisites for all courses in this program.

4.0 credits are required, including at least 1.5 at the 300/400 level.

*First Year:* PSY100Y

*Second Year:* PHL252H, 272H

*Higher Years:* SCI398Y, 499H; one of AST252H; PHL255H, 342H, 355H; PHY206H; PSY210H, 270H; WRI307H

## Sociology (Arts)

### Specialist Program ERSPE1013

Within an Honours degree, 9.0 credits in Sociology are required; including SOC101Y, 200Y, 314Y, 300Y, 387H and 388H and at least 2.0 additional courses at the 300/400 level.

**Limited Enrolment**—Students may apply to enrol after having completed 4.0 or more credits with a mark of 70% or higher in SOC101Y and a CGPA of at least 2.0. Students applying to enrol after having completed 8.0 credits must obtain an average mark of 70% or higher in all SOC courses and a CGPA of at least 2.0.

*First Year:* SOC101Y

*Higher Years:*

1. SOC200Y (see NOTES below)
2. SOC300Y, 314Y, 387H, 388H
3. 4.0 additional SOC courses including 2.0 courses at 300/400 level.
4. 1.0 SOC course at the 400 level

### Major Program ERMAJ1013

7.0 credits in Sociology are required, including SOC101Y, 200Y and 314Y and at least 2.0 additional courses at the 300/400 level.

**Limited Enrolment**—Students may apply to enrol after having completed 4.0 or more credits with a mark of 70% or higher in SOC101Y and a CGPA of at least 2.0. Students applying to enrol after having completed 8.0 credits must obtain an average mark of 70% or higher in all SOC courses and a CGPA of at least 2.0.

#### **First Year:** SOC101Y

#### **Higher Years:**

1. SOC200Y (see NOTES below)
2. SOC314Y
3. 4.0 additional SOC courses including 2.0 courses at 300/400 level. SOC300Y, 387H and 388H are recommended.

#### **Minor Program ERMIN1013**

4.0 credits in Sociology are required, including SOC101Y and at least 1.0 SOC course at 300/400 level.

**Limited Enrolment**—Students enrolling at the end of first year must have 65% in SOC101Y. Students enrolling in subsequent years must obtain an average mark of 65% or higher in all SOC courses.

#### **Important NOTES for Sociology programs**

**SOCIOLOGY WEB SITE:** See our web site for program requirements, faculty information, course documents and contact information: [www.utm.utoronto.ca/~w3soc/](http://www.utm.utoronto.ca/~w3soc/)

**SOC200Y:** Students majoring or specializing in Sociology should enrol in SOC200Y in the SECOND YEAR or immediately after having taken SOC101Y.

**SOC300Y EQUIVALENTS FOR SPECIALISTS ONLY:** For Sociology Specialists required to take SOC300Y, the following courses are the ONLY acceptable equivalent: STA220H, 221H. You must take BOTH half courses. In NO other circumstance may students count STA220H or 221H towards a Major or Minor in Sociology.

**PREREQUISITES:** It is the student's responsibility to make certain they have completed the appropriate prerequisite course(s). Students MUST have completed

the prerequisite course(s) BEFORE registering in any 200, 300, or 400 level Sociology course. The Department reserves the right to remove, at any time during the academic year, any student who did not complete the appropriate prerequisite.

#### **Statistics, Applied (Science)**

##### **Specialist Program ERSPE1540**

Within an Honours degree, 10.0 credits are required.

1. MAT102H, (132Y, 232H)/138Y
2. CSC108H/148H
3. STA(257H, 261H)/ECO227Y
4. MAT248Y, (212H/258Y\*)
5. STA302H, (332H/402H)
6. Two of STA412H, 437H, 442H, 457H
7. 2.5 to 3.5 additional credits (including at least 2.0 credits at the 300+ level) in STA, ACT or from BIO360H\*\*, CSC270H, 350H, 354H; ECO220Y\*\*, 327Y; GGR488H; MAT311H, 334H\*, 344H, 368H, 378H, 438H; PSY201H\*\*; SOC300Y\*\*, for a total of 10.0 credits.

##### **Major Program ERMAJ1540**

7.0 credits are required.

1. MAT(132Y, 232H)/138Y
2. CSC108H/148H
3. MAT222H/248Y\*
4. STA(257H, 261H)/ECO227Y, STA302H, (332H/402H)
5. 2.0 to 3.0 additional credits (including at least 1.0 credit at the 300+ level) in STA, ACT or from BIO360H\*\*; CSC270H, 350H, 354H; ECO220Y\*\*, 327Y; GGR488H; MAT311H, 334H\*, 344H, 368H, 378H, 438H; PSY201H\*\*; SOC300Y\*\*, for a total of 7.0 credits.

##### **Minor Program ERMIN1540**

4.0 credits are required, including 1.0 at the 300/400 level.

1. MAT132Y/138Y
2. STA(257H, 261H)/ECO227Y
3. 2.0 additional credits in STA, ACT or from BIO360H\*\*, CSC354H; ECO220Y\*\*, 327Y; GGR488H; PSY201H\*\*; SOC300Y\*\* (including at least 0.5 credit in STA at the 300/ 400 level), for a total of 4.0 credits.

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## Notes:

- \*Optional in the program, but highly recommended for graduate study in Statistics.
  - \*\*To receive credit for this course, it must be taken prior to STA257H.
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## Theatre and Drama Studies

See Drama

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## Visual Culture and Communication

See Communication, Culture and Information Technology

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## Women's/Gender Studies (Arts)

Contact Program Secretary  
(905) 828-5201

Women's/Gender Studies focuses on questions of gender in every field of study, and particularly on the perspectives of women and on feminist analyses. This focus, which crosses disciplinary lines, can be carried into many areas, such as Anthropology, Literature, Art, History, Linguistics, Philosophy, Politics, Psychology, Religion, and Sociology.

### Major Program ERMAJ1443

7.0 credits are required, including at least 2.0 at the 300+ level.

**Limited Enrolment**—Students enrolling at the end of first year (4.0 credits) must obtain a CGPA of at least 1.80. Students applying to enrol after second year (8.0 credits) must obtain a CGPA of at least 2.00 and a mark of at least 65% in ERI 200Y.

*First Year:* 2.0 credits from the following list (N.B.: students should choose their first- and second-year courses with a view to satisfying the prerequisites required for courses to be taken later in the program): ANT100Y/(101H, 102H); ENG110Y/120Y/140Y; HIS102Y; PHL100Y/101Y/105Y; PSY100Y; RLG100Y/105Y/280Y; SOC101Y

*Second, Third and Fourth Years:* ERI200Y plus 4.0 credits from the following: ANT204Y, 331Y; CLA204H/205Y, 219H; DRE121H, 122H; ENG233Y; ERI300Y, 410H/411Y; FAH435H; FRE290H; HIS308Y, 326Y, 360Y, 441H; ITA227Y/228Y, 317H/318H; JAL355H; PHL243H, 267H, 277Y; RLG225H; SOC202Y, 214Y, 215Y, 301Y, 304Y, 332H, 333H, 365Y

### Minor Program ERMIN1443

4.0 credits are required, including 1.0 at the 300+ level.

*First Year:* 1.0 credit from the following list (N.B.: students should choose their first- and second-year courses with a view to satisfying the prerequisites required for courses to be taken later in the program): ANT100Y/(101H, 102H); ENG110Y/120Y/140Y; HIS102Y; PHL100Y/101Y/105Y; PSY100Y; RLG100Y/105Y/280Y; SOC101Y.

*Higher Years:* ERI200Y plus 2.0 credits from the following: ANT204Y, 331Y; CLA204H/205Y, 219H; DRE121H, 122H; ENG233Y; ERI300Y, 410H/411Y; FAH435H; FRE290H; HIS308Y, 326Y, 360Y, 441H; ITA227Y/228Y, 317H/318H; JAL355H; PHL243H, 267H, 277Y; RLG225H; SOC202Y, 214Y, 215Y, 301Y, 304Y, 332H, 333H, 365Y

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## Writing, Professional (Arts)

See Professional Writing and Communication

The word "courses" refers to full courses, or the equivalent in full and/or half courses.

## **Course Designations**

"ANT," "AST," "BIO," etc.

All courses are listed in the following pages under the Department responsible for the course; for instance, "ANT" = Anthropology Department course.

**Course Number**

The course number generally indicates the level of difficulty, e.g., a 100 level course normally indicates an introductory course, a 400 level course is an intensive course at the senior level.

## Course Suffixes

The "Y" or "H" following the Course Number in this Calendar indicates only the credit value:  
"Y" = a full course, for which one credit is given.  
"H" = a half-course, for which one-half credit is given.

To determine the periods of instruction, refer to the Course Timetable on the UTM web site, [www.utm.utoronto.ca](http://www.utm.utoronto.ca), where the following course suffixes apply:

- F Course given in the Fall Session or the first sub-session of the Summer.
  - S Course given in the Winter Session or the second sub-session of the Summer.
  - Y Course extending over both Fall and Winter Sessions or over the entire Summer Session.

**NOTE:** Not all courses listed in this Calendar will be offered in any one single session. Check the timetable for each session for the specific courses offered in that session.

## **Types and Duration of Instruction**

"L" = Lectures

"P" = Practical work in laboratories or studios

"S" = Seminars

"T" = Tutorials

In the Fall+Winter Sessions, the normal period of instruction is 26 weeks, with each session being 13 weeks. Total hours of instruction are indicated by codes at the end.

of the course description; for instance, "52L" = 52 lecture hours, "26T" = 26 tutorial hours.

**NOTE:** Please note that the number of hours listed is approximate only. The actual contact hours of a course, or of different sections of a course, may vary somewhat from the number indicated in the Calendar, due to the size of the class or section, and the use being made of the tutorial or practical components of the class. The variation is at the discretion of the department sponsoring the course. Any questions concerning the allotment of hours in a course should be addressed to the course sponsor.

### **Symbols Used in Course Description and Program Requirements:**

- (P.I.) Permission of instructor required to enrol.  
(I) Open to first-year students (shown after course number).  
(G) Course available only on the St. George Campus.

(,) comma      (;) semi-colon      (&) ampersand      } means AND

(/) slash means OR

**NOTE:** In the biological and science teaching programs there may be occasions when anatomical, biochemical, physiological and pharmacological observations are made by students on themselves or on fellow students. These include some common diagnostic or immunization procedures. Unless a valid reason exists, students are expected to participate in such exercises. If any investigative work involving student participation does not form part of the teaching program, participation is voluntary.

## Research Opportunity Program: 299Y

The Research Opportunity Program (ROP) provides an opportunity for students in their second year (i.e. after having successfully completed at least 4.0 credits but not more than 9.0 credits) to earn 1.0 credit by participating in a faculty member's research project.

Descriptions of the *ROP299Y Projects* will be available in Registrarial Services, in the Career Centre, in the Library, in the Academic Skills Centre and on the web ([www.utm.utoronto.ca/r\\_d/ROP.html](http://www.utm.utoronto.ca/r_d/ROP.html)) by February 13, 2004.

Students wishing to apply for placement in ROP should submit application forms (available in the ROP binder and on the web), to the coordinator no later than March 12, 2004.

Students will be informed by April 12, 2004 whether or not they have been accepted and must confirm their acceptance by June 14, 2004. The ROP Coordinator will register successful applicants in their 299Y course. Students will not be permitted to accept more than one 299Y course.

Each 299Y course will bear the three-letter designator of the sponsoring department, i.e., FAH299Y, SOC299Y etc. Not all departments will necessarily participate in the ROP each year.

Students will be expected to keep a journal recording meetings, progress, and what was learned about the project, in particular the nature of research in general.

Under individual Department course listings the following will appear:

**XXX299Y Research Opportunity Program**  
Credit course for supervised participation in faculty research project.

Deadline for submission of applications to the ROP in the 2004-2005 school year is *March 12, 2004*.

For more information on the ROP, contact:  
ROP Coordinator  
Registrarial Services  
Room 2122, South Bldg.

## Anthropology

### Professors Emeriti:

M. Kleindienst, B.A., M.A., Ph.D.  
J. Melbye, B.A., M.A., Ph.D.  
R. Vanderburgh, B.A., M.A., Ph.D.

### Professors:

G.W. Crawford, B.Sc., M.A., Ph.D.  
H.M.-L. Miller, B.A., M.Sc., M.A.,  
Ph.D.  
E. Parra, B.Sc., M.Sc., Ph.D.  
T.L. Rogers, B.A., M.A., Ph.D.  
J. Sidnell, B.A., M.A., Ph.D.  
B. Sigmon, B.S., M.S., Ph.D.  
D.G. Smith, B.A., M.A., Ph.D.

### Adjunct Professors:

A. von Gernet, B.A., M.A., Ph.D.

*Discipline Representative and Faculty Advisor:* Professor D. Smith  
Room 211, North Bldg.  
(905) 828-3784

### Departmental Secretary:

Teresa Cabral  
Room 227, North Bldg.  
(905) 828-3726

Anthropology is the study of human biology and culture and the interaction between the two. Courses are offered in three subfields of anthropology. Biological Anthropology is the biological study of humans and their relatives within the framework of culture. Biological studies include human osteology, human palaeontology, human genetics and adaptation, human growth, and primatology. Sociocultural Anthropology is the study of the ways of life of peoples throughout the world: technologies, economies, societies, languages, and value systems; the inter-relationships of these; and the relationship between culture and environment.

Archaeology is the study of physical remains resulting from human behaviour (e.g., habitations, tools, food remains). The goal of archaeologists is to reconstruct the cultures of the past and to trace their development from earliest times. Conclusions are drawn about the interactions of cultural and physical processes.

The Anthropology program offers the student the general background necessary for

the advanced training required for professional positions. It is the special concern of the faculty to introduce students to research methods and to involve them in the research programs of the department. Students planning an anthropology concentration should consult faculty members for advice.

Anthropologists are employed as faculty in universities and colleges, as researchers in museums, in national and international governmental bodies, in international agencies, and in business and industry. For additional information see Anthropology as a Career by Wm. C. Sturtevant and The Study of Anthropology by Morton Fried, available at the UTM Library.

See page 41 for Anthropology courses considered as Science courses. Other ANT Science courses are offered on the St. George Campus.

**Note:**  
Consult timetable for current offerings.

#### **ANT101H5 Introduction to Biological Anthropology and Archaeology**

Anthropology is the global and holistic study of human biology and behaviour, and includes four subfields: biological anthropology, archaeology, sociocultural anthropology and linguistics. The material covered is directed to answering the question: What makes us human? This course is a survey of biological anthropology and archaeology. [26L, 13T]

*Exclusion:* ANT100Y  
*Prerequisite:* ANT102H

#### **ANT102H5 Introduction to Sociocultural and Linguistic Anthropology**

Anthropology is the global and holistic study of human biology and behaviour, and includes four subfields: biological anthropology, archaeology, sociocultural anthropology and linguistics. The material covered is directed to answering the question: What makes us human? This course is a survey of sociocultural and linguistic anthropology. [26L, 13T]

*Exclusion:* ANT100Y

#### **ANT200Y5 Prehistoric Archaeology**

Archaeological method and theory, and world prehistory. Principles of scientific research will be applied to archaeological information, from the Early Pleistocene to the beginning of written history. [52L, 26T]

*Prerequisite:* ANT(101, 102H)/100Y

#### **ANT203Y5 Biological Anthropology**

(Formerly: Physical Anthropology)

A survey of the field of biological anthropology. Topics will include human evolution and palaeontology, skeletal biology, human genetics and variation, human growth, primatology and human adaptation. [52L, 26T]

*Prerequisite:* ANT(101H, 102H)/100Y

#### **ANT204Y5 Sociocultural Anthropology**

A general introductory course emphasizing social and political organization, economics, and the development of theory. Specific cases of social dynamics are drawn from both traditional and contemporary societies. [52L, 26T]

*Prerequisite:* ANT(101H, 102H)/100Y

#### **ANT205H5 Introduction to Forensic Anthropology**

Introduction to the field of forensic anthropology. Outlines the areas in which forensic anthropologists may contribute to a death investigation and introduces basic concepts relating to the recovery and analysis of human remains. [26L, 13T]

*Prerequisite:* ANT(101H, 102H)/100Y

#### **ANT206H5 Culture and Communication:**

##### **Introduction to Linguistic Anthropology**

Introduction to linguistic anthropology and sociolinguistics. This includes: the issue of meaning in language, the use of language in context, the role of language in the organization of human activity, language and identity, the sequential organization of talk-in-interaction. [26L]

*Prerequisite:* ANT101H, 102H

# **Anthropology**

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## **ANT241Y5 Aboriginal Peoples of North America**

Overview of the prehistory, ethnohistory, and ethnology of aboriginal cultures, exploring kinship, social organization, political structure, trade relations, economics, technology, art and religion. [52L]

*Prerequisite:* ANT(101H, 102H)/100Y

## **JAL253H5 Language and Society**

The study of the relationship between language and society with the goal of understanding social structure through language; major themes are multilingual societies, including pidgin and creoles, and social interaction through speech. (Given by the Departments of Anthropology and Linguistics) [26L, 13T]

*Prerequisite:* LIN100Y/200H

## **ANT299Y5 Research Opportunity Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

## **ANT304Y5 Change and Continuity in Canadian Aboriginal Societies**

A seminar exploring the internal and external factors which have led to disruption and revitalisation of "traditional" aboriginal cultures. The effects of contact between aboriginal and non-aboriginal peoples in Canada from the 16th century to the present are emphasized. [52S]

*Exclusion:* ANT304H

*Prerequisite:* ANT241Y

## **ANT306H5 Forensic Archaeology**

Introduction to the field of forensic archaeological field techniques and scene interpretation. A 2-week field school will be held on the UTM campus (Monday to Friday 9-4, last two weeks of August). Weekly 1 hour classes will be held during the fall term. In these classes, students will examine casts, maps, photos and other evidence collected in the field, for the purposes of scene reconstruction and presentation in court. [96P]

*Prerequisite:* ANT205H

*Limited Enrolment*

## **ANT310H5 Prehistory of Complex Societies**

A survey of prehistoric state-level societies around the world. These cases will be analyzed comparatively to evaluate current and past theories of state formation, cohesion, maintenance and dissolution. [26L]

*Prerequisite:* ANT200Y

## **ANT312H5 Archaeological Analysis**

Examines the process whereby archaeological data become meaningful in a scientific context. [39P]

*Prerequisite:* ANT200Y  
*Limited Enrolment*

## **ANT313H5 East Asian Prehistory**

Surveys the archaeology of East Asia and relates the data to more general issues in the scientific study of prehistory. [26L]

*Prerequisite:* ANT200Y

## **ANT316H5 South Asian Archaeology**

Survey of the archaeology of prehistoric and historic South Asia, using a comparative framework to show how social and cultural developments in this region are similar to and different from developments in other world regions. [26L]

*Prerequisite:* ANT200Y

## **ANT317H5 Archaeology of Eastern North America**

Chronology and analysis of the prehistoric culture areas and stages of Eastern North America in a scientific context. [26L]

*Prerequisite:* ANT200Y

## **ANT318H5 Archaeological Fieldwork**

Practical experience on an archaeological site during the last two weeks of August, followed by weekly laboratory sessions September to December. [26P]

*Exclusion:* ANT228H

*Prerequisite:* ANT200Y  
*Limited Enrolment*

## **ANT327H5 Origins of Food Production**

The history of food production in the Old and New World. Archaeological data are used to examine the processes of animal and plant domestication as well as the cultural impact of food production. [26L]

*Prerequisite:* ANT200Y

**ANT331H5 The Biology of Human Sexuality**

(Formerly ANT331Y: Human Sexuality, Gender and Evolution)

An exploration of the biology of human sexual differences. Emphasizes the developmental, anatomical and evolutionary dimensions of human sexuality. [26L]

*Exclusion:* ANT330H, 331Y

*Prerequisite:* ANT203Y

**ANT332Y5 Human Origins**

A survey of human palaeontology and the evolutionary stages through which humans passed in becoming *Homo sapiens*. [52L, 26P]

*Prerequisite:* ANT203Y, 338H

**ANT334Y5 Human Osteology**

Includes normal anatomy of the human skeleton, metrical and morphological variation, age and sex determination, palaeodemography, palaeopathology, palaeonutrition, and techniques of recovering, preserving and recording human remains. [26L, 52P]

*Prerequisite:* ANT203Y

*Limited Enrolment*

**ANT335H5 Anthropology of Gender**

Survey of the function of gender roles from evolutionary and cultural perspectives.

Cross-cultural variation in human sexual behaviour and gender will be examined. [26L]

*Exclusion:* ANT331Y, 343H, 343Y

*Prerequisite:* ANT204Y

*Recommended Preparation:* ANT203Y

**ANT336H5 Molecular Anthropology**

Survey of molecular anthropology, a subdiscipline of anthropology that attempts to understand human evolution and the variation observed in our species using molecular information. [26L, 13T]

*Prerequisite:* ANT203Y

**ANT338H5 Laboratory Methods in Biological Anthropology**

Recommended for those who may specialize in biological anthropology. The student will be guided in basic laboratory procedures on specific topics as they are discussed in the survey course. [39P]

*Prerequisite:* ANT203Y

*Limited Enrolment*

**ANT339Y5 Human Adaptation through Biological and Cultural Means**

How the body adapts to differing physical environments and how behaviour has expanded the range of human adaptation, in sensing, perceiving and interpreting the environment, through cultural means. [52L]

*Exclusion:* ANT339H

*Prerequisite:* ANT203Y

*Recommended Preparation:* BIO152H, 153H

**ANT349Y5 The Anthropology of Art**

From an anthropological and evolutionary perspective, we explore the adaptive nature of art, especially during its origins in prehistoric times. We will inquire into the use of creating images as a form of communication and the consequences of this adaptation to the origin of human cognition in modern *Homo sapiens*. Laboratory sessions will include experimentation with various media that can be used in pictorial representation. Analysis of the function of artistic expression will be a part of the laboratory sessions. [78L]

*Exclusion:* ANT347Y

*Prerequisite:* ANT101H, 102H and one other 200 level ANT course

**JAL355H5 Language and Gender**

Ways in which women and men differ in their use of language and in their behaviour in conversational interaction: ways in which language reflects cultural beliefs about women and men. [26L]

*Prerequisite:* ANT204Y/ENG233Y/

ERI200Y/LIN200H/SOC202Y/214Y/215Y

## **ANT358H5 Introduction to Ethnographic Field Techniques**

Recommended for those who may specialize in anthropology. Oriented around student projects; covers multiple aspects of field and research methodology (problem design, interviewing, record-keeping, etc.). [26L]

*Prerequisite:* ANT204Y

## **ANT397H5 Independent Study**

Supervised reading in selected anthropological topics.

*Prerequisite:* Permission of Faculty Advisor

## **ANT398Y5 Independent Reading**

Supervised reading in selected anthropological topics.

*Prerequisite:* Permission of Faculty Advisor

## **ANT399Y5 Independent Research**

Supervised research in anthropology.

*Prerequisite:* Permission of Faculty Advisor

## **ANT401H5 Visual Communication**

Major approaches to the study of visual communication are studied. Bodies of visual materials, both documentary and commercial are analyzed in terms of social and cultural contexts. Student projects may involve the use of still, movie, video filming and archival sources. [39P]

*Prerequisite:* ANT204Y

## **ANT405Y5 Technology, Society and Culture**

A seminar and practicum focusing on the insights into social and cultural processes provided by the study of technology. It emphasizes hands-on experimental approaches to research as well as the use of archaeological, textual, and ethnographic studies. Students will develop their own research project, which is expected to include an experimental or replicative study, and will write a publishable paper on this project. [26L, 78P]

*Prerequisite:* ANT200Y, 204Y

*Recommended Preparation:* ANT312H/318H/358H

*Limited Enrolment*

## **ANT411H5 Archaeological Theory**

An evaluation of explanatory processes in prehistory and a comparison of archaeological theories with general scientific theories. [26L]

*Prerequisite:* ANT200Y

## **ANT414H5 People and Plants in Prehistory**

The examination of plant remains from archaeological sites addresses many issues, some of which include environmental interaction, plant domestication, and early plant use. Students will learn plant remains identification and interpretation skills through a combination of laboratory and seminar sessions. [26P]

*Prerequisite:* ANT200Y, 312H/318H

*Limited Enrolment*

## **ANT415Y5 Faunal Archaeo-Osteology**

Examination and interpretation of faunal material from archaeological sites, to obtain cultural information regarding the site occupants. [78P]

*Prerequisite:* ANT200Y

*Recommended Preparation:* ANT312H/334Y

*Limited Enrolment*

## **ANT418H5 Advanced Archaeological Fieldwork**

Fieldwork and analysis of artifacts. [26P]

*Prerequisite:* ANT318H

*Limited Enrolment*

## **ANT430Y5 Special Problems in Biological Anthropology and Archaeology**

Supervised independent research in Biological Anthropology or Archaeology for students requiring science credit.

*Prerequisite:* Permission of Faculty Advisor

## **ANT431Y5 Special Problems in Sociocultural or Linguistic Anthropology**

Supervised independent research in Sociocultural or Linguistic Anthropology.

*Prerequisite:* Permission of Faculty Advisor

**ANT432H5 Special Seminar in Anthropology**

A research oriented seminar with topics that may vary from year to year depending on special interests of staff and students.

*Prerequisite:* P.I.

**ANT434H5 Palaeopathology**

The study of diseases and maladies of ancient populations. The course will survey the range of pathology on human skeletons, (trauma, infection, syphilis, tuberculosis, leprosy, anemia, metabolic disturbances, arthritis and tumors). [13L, 26P]

*Prerequisite:* ANT334Y

**ANT438H5 The Development of Thought in Biological Anthropology**

This course will present a world-wide perspective of Biological Anthropological research and how it developed in different countries. To be discussed will be variation in approaches, subjects studied, philosophical attitudes, and the emergence of common themes in the study of Physical Anthropology. [26L]

*Prerequisite:* ANT203Y and two other courses in Biological Anthropology

**ANT439Y5 Advanced Forensic Anthropology**

The identification of the remains of victims of homicide, mass disasters and political atrocities. Special methods are used in the recovery and identification of human skeletal remains for presentation in courts of law. [26L, 52P]

*Prerequisite:* ANT205H, 334Y

**ANT460H5 Theory in Sociocultural Anthropology**

Survey of major theoretical perspectives developed in social and cultural anthropology. The main ideas and underlying assumptions of each perspective will be critiqued and evaluated for their contributions to the field. [26L]

*Prerequisite:* ANT204Y

**ANT499Y5 Advanced Independent Research**

For students whose original research is leading towards a publishable report.

*Prerequisite:* Permission of Faculty Advisor

## Astronomy

### Professors:

J.B. Lester, B.A., M.Sc., Ph.D.  
J.R. Percy, B.Sc., M.A., Ph.D.

### Discipline Representative and Faculty

Advisor: Professor John Percy  
Room 4046, South Bldg.  
Office Hours by Appointment  
(905) 828-5351

### Secretary: E. Kobluk

Room 4037, South Bldg.  
(905) 828-3800

Astronomy, of all the sciences, is perhaps the most wide-ranging in its content and in its implications. It embraces such topics as the origin and evolution of the planets, stars, galaxies and the whole universe; the origin of life on earth and elsewhere; the behaviour of matter in environments never experienced on earth, and in general, the influence of the universe on mankind's thinking down through the ages. Because of its breadth, it has always formed a valuable part of a general education

With this in mind, we offer courses of interest to every student at UTM. Three of these are introductory courses. AST101H and AST201H are both intended for students from outside the sciences. AST101H introduces the student to the historical background of astronomy and continues through to the modern discoveries about the solar system and the development of modern telescopes and observatories, both on the ground and in space. AST201H surveys the structure and evolution of the stars, galaxies, quasars, and the universe as a whole. Students with a background in science can take AST110H, which provides an introduction to observing and analysis, including some computer modelling.

AST252H is a unique interdisciplinary course that examines the broad topics of the origin and evolution of the universe, galaxies, stars, planets, and life. This course is intended for students who have some background in the sciences. The Astronomy Department sponsors a specialist program in Astronomical Sciences and a major program in Astronomy, both of which are outlined in Section 8 of this Calendar. Students

interested in either of these programs should consult the Astronomy Faculty Advisor at UTM as early as possible in their first year. The Faculty Advisor can also provide information and advice about the astronomy courses and programs available on the St. George Campus.

### AST101H5 Solar System Astronomy

This course traces our understanding of solar system objects from prehistoric times to the present. The impact of telescopes and space observatories is outlined. This course is for students with NO science background or those who do not intend to specialize in science. [26L, 13T]

*Exclusion:* JEA237H; a 100 or higher level course in Chemistry or Physics.

### AST110H5 Practical Astronomy

This course gives a quantitative, scientific introduction to observing, concentrating on objects that can be seen with the naked eye or with binoculars. The measurements will be combined with calculations to yield quantitative conclusions and predictions. Computer programs are used to understand the observations more completely. This is the first course for students following the major in astronomy or the specialist in astronomical sciences, but it is also suitable for students with the appropriate background who want to understand more fully the celestial phenomena visible to them. [26L, 13T]

*Exclusion:* AST225H(G), 325H(G)

*Recommended Preparation:* O.A.C. Physics/Grade 12 Physics: SPH4U; (O.A.C. Calculus, Algebra and Geometry)/(Grade 12 Advanced Functions & Introductory Calculus: MCB4U, Grade 12 Geometry & Discrete Mathematics: MGA4U)

**AST201H(1)5 Stars and Galaxies**

This course surveys current ideas about the structure and evolution of astronomical objects ranging from the stars to the universe as a whole. This course is intended for students with NO science background or those who do not intend to specialize in science. This course does not require AST101H, but it may be combined with AST101H for a full-course credit in science for distribution purposes. [26L, 13T]

**Exclusion:** AST252H; a 100 or higher level course in Chemistry or Physics with the exception of PHY205H and PHY206H.

**AST252H5 Cosmic Evolution**

The origin and evolution of the chemical elements, the universe, galaxies, stars, planets (interiors and atmospheres), and life—on earth and possibly elsewhere. [26L]

**Exclusion:** AST101H, 121H(G), 201H, 221H(G), 251H

**Prerequisite:** CHM140Y/PHY135Y/137Y

**AST299Y5 Research Opportunity Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

**AST425H5 Research Topic in Astronomy**

Consists of a research report by the student, in consultation with an individual staff member in the department. Students must enrol with the faculty advisor of the department on the UTM Campus.

**Prerequisite:** Any two 300 level PHY courses

**Corequisite:** AST420H(G) or

**Prerequisite:** AST325H(G)

**Biology****Professors Emeriti:**

P.W. Ball, B.Sc., Ph.D.  
P.F. Maycock, B.A., M.Sc., Ph.D.  
J. Svoboda, B.Sc., Ph.D.

**Professors:****Botany**

J.B. Anderson, B.A., Ph.D.  
W.R. Cummins, B.Sc., Ph.D.  
G.S. Espie, B.Sc., Ph.D.  
P.A. Horgen, B.A., M.Sc., Ph.D.  
L.M. Kohn, B.Sc., Ph.D.  
P.M. Kotanen, B.Sc., M.Sc., Ph.D.  
B.J. Saville, B.Sc., M.Sc., Ph.D.

**Zoology**

T.M. Alloway, B.A., M.A., Ph.D.  
R.L. Baker, B.Sc., M.Sc., Ph.D.  
N.C. Collins, B.A., Ph.D.  
J.H. Fullard, B.Sc., M.Sc., Ph.D.  
D.L. Gibo, B.A., Ph.D.  
D.T. Gwynne, B.Sc., Ph.D.  
A.B. Lange, B.Sc., Ph.D.  
G.K. Morris, B.S.A., M.Sc., Ph.D.  
D. O'Day, B.Sc., M.Sc., Ph.D.  
I. Orchard, B.Sc., Ph.D., D.Sc.  
R.R. Reisz, B.Sc., M.Sc., Ph.D.  
M.B. Sokolowski, B.Sc., Ph.D., F.R.S.C.  
W.G. Sprules, B.Sc., M.A., Ph.D.  
J.T. Westwood, B.Sc., Ph.D.

**Chair of the Biology Group at Erindale:**

Professor G.S. Espie

**Chair of the Biology Curriculum Committee:**

Professor W.G. Sprules

**Faculty Advisor:** Professor D. Dilkes

(until June 30, 2003;  
July 1 onward, T.B.A.)  
Room 3037, South Bldg.  
(905) 828-5366

Biology is the science of living organisms. It relates to such major human problems as starvation, overpopulation, conservation, pollution, and to the whole field of medicine and disease.

Botanists and Zoologists at UTM cooperate closely in offering Biology courses that focus on the structure, function and evolution of biological systems from the molecular scale to the level of the ecosystem.

Career opportunities open to graduates in Biology include teaching; governmental research in areas such as environmental problems, natural resources, wildlife management, conservation, pollution and pest control; business and industry, including biological supply companies, pharmaceuticals, food and dairy industries and biotechnology; medical, dental and related fields including physiological or microbiological research.

Students interested in cell/ molecular/ genetics courses should take BIO215H in their second year. Please check prerequisites for 300/400 level courses.

Further information on Biology courses, programs, and the research interests of the Biology faculty can be found in the *Erindale Biology Handbook*, copies of which can be obtained from the Biology Secretarial Office, Room 3032, South Bldg., or on the web site at: [www.utm.utoronto.ca/~w3bio/homepage/index.htm](http://www.utm.utoronto.ca/~w3bio/homepage/index.htm). The Biology Faculty Advisor is available for help with choosing courses and discussing program requirements.

Effective biological training involves careful study of real organisms, both living and dead. Consequently, almost all BIO courses with laboratories involve students in one or more of the following activities with animals, plants, and/or microorganisms: collecting and preserving organisms from the field; dissecting or handling preserved or euthanized specimens (or properly anaesthetized living specimens); observing and making measurements on organisms maintained under laboratory conditions approved by the Canadian Council of Animal Care. Completion of Specialist or Major programs in Biology will require students to participate in many such activities. Therefore, **students who have objections to such activities should not attempt to major or specialize in Biology at UTM**. Students in non-Biology programs who wish to take a Biology course with minimal direct contact with organisms should consult the Biology advisor.

In obtaining organisms for study in our courses and in studying outdoor natural areas, the Biology Group takes measures to avoid any impacts on threatened organismal groups or rare habitats, and to limit below

sustainable levels the impacts of our collecting and measuring on local animal and plant populations.

**Students without pre-and co-requisites or written permission of the instructor can be de-registered from courses at any time.**

## **ENV100Y5 The Environment**

For description see Environment courses.

## **BIO152H5 Introduction to Evolution and Evolutionary Genetics**

The scientific method and the modern theory of evolution as an introduction to biology. The principles of evolution, transmission and evolutionary genetics are developed in lectures and laboratories. [26L, 21P]

*Exclusion:* BIO151Y

*Prerequisite:* OAC Biology/Biology Grade 12U (SBI4U)

### **Note:**

Beginning in 2004, the prerequisites for BIO152H will be: OAC BIO/BIO Gr.12(4U); OAC CHM/CHM Gr.12(4U); OAC Calculus/ Gr.12(4U) Advanced Functions & Introductory Calculus; (OAC A&G/OAC FM) or (Gr.12(4U) Geometry & Discrete Mathematics/Gr.12(4U) Mathematics of Data Management).

## **BIO153H5 Diversity of Organisms**

The consequences of Darwinian evolution: adaptations of organisms as a product of the main evolutionary mechanism – natural selection. The roles of natural selection and other mechanisms in the diversification of life are reviewed, along with the diversity of structures and life cycles in viruses, bacteria, protists, animals, plants and fungi. [26L, 39P]

*Exclusion:* BIO151Y

*Prerequisite:* BIO152H

**BIO204H5 Introduction to Physiology**

How animals and plants work. Follows food from ingestion through energy production to the work of the living system and finally excretion of waste. Topics covered include elementary biochemistry, nutrition, digestion, translocation and circulation, respiration, photosynthesis, hormones, muscles and nerves. [26L, 33P]

*Prerequisite:* CHM140Y; BIO152H, 153H/P.I.

**BIO205H5 Ecology**

An introduction to ecological principles emphasizing the structure and dynamics of populations, communities, and ecosystems. Practical sessions include field work in the vicinity of the campus. [26L, 18P]

*Prerequisite:* BIO151Y/(152H, 153H)/(ENV100Y for students in Environmental Programs)

**BIO206H5 Introductory Cell and Molecular Biology**

An introduction to the molecular biology of the cell with an emphasis on similarities and differences between prokaryotic and eukaryotic cells. Topics include the structure and function of: macromolecules, membranes, ribosomes, nuclei, intracellular organelles, etc. Other topics include: the central dogma of molecular biology (replication, transcription and translation), protein targeting, organization of the genome, gene regulation and regulation of the cell cycle. In the tutorial, students will use microscopes to study cells, learn how to use computer software related to the course and build three dimensional models of DNA, proteins and lipids. [26L, 16T]

*Exclusion:* BIO202H, 250Y(G)

*Prerequisite:* CHM140Y

**BIO207H5 Introductory Genetics**

The principles of Mendelian inheritance and modern genetics are illustrated using examples from medical research, evolutionary biology, agriculture and conservation biology. Topics covered include: chromosome theory of inheritance, basic eukaryotic chromosome mapping, gene and chromosome mutation, the lac system, the extranuclear genome, population and quantitative genetics. In tutorials, students will work through problem sets related to lecture material as well as probability and statistical analysis. [26L, 18T]

*Exclusion:* BIO203H, 260H(G)

*Prerequisite:* BIO152H, 206H

*Corequisite:* BIO153H; CHM140Y

**Note:**

To students doing Specialist programs in Biology, Biodiversity and Evolutionary Biology, Comparative Physiology, and Molecular Biology: BIO215H must also be taken to fulfill degree requirements.

**BIO210H5 Fundamentals of Human Anatomy and Physiology**

The design of the human body. Topics include locomotory and other major organ systems, integrating structure and function. A comparative approach is taken, placing the design of the human body in an evolutionary context. [26L, 12T]

*Prerequisite:* BIO151Y/(152H, 153H)

**BIO215H5 Laboratory in Molecular and Genetics**

Students perform some modern molecular biology techniques including: DNA restriction analysis, transformation, plasmid isolation and characterization, PCR and DNA finger-printing. Additional labs in classical genetics include: Mendelian genetics, monohybrid and dihybrid crosses in *Drosophila melanogaster*, sex linkage, chromosome mapping and tetrad analysis. A 1-hour lecture each week provides an introduction and theoretical basis for each lab. [13L, 39P]

*Exclusion:* BIO202H, 250Y(G)

*Prerequisite:* BIO206H

*Corequisite:* BIO207H

## BIO299Y5 Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 98 for details.

## BIO301H5 Marine Biology

A field course at St. Andrews, New Brunswick, consisting of informal lectures and seminars with intensive field and laboratory work. Different marine habitats are examined in detail and the animals and plants associated with them are classified. Students carry out projects in which they are encouraged to develop their own ideas and interests. Lectures on special topics are given by the scientific staff of the Biological Station. The course is given in the two-week period before the beginning of the fall term. Students must meet their own costs for board, lodging and transportation. Application/ballot forms are available in Room 3030, South Bldg. Please see the Biology Secretary in September for further details.

*Prerequisite:* BIO205H and specific permission of field course coordinator

## BIO304H5 Neurobiology

The biology of nervous systems, including the electrophysiological properties of neurons and muscles, the role of the cell membrane in bioelectricity, and the organization of neural circuits into higher-order processing systems (i.e., the central nervous system). [26L, 39P]

*Prerequisite:* BIO204H/specific permission of the instructor

## BIO310H5 Physiology of Regulatory Systems

The sub-organismal, physiological responses of an animal to various external stresses imposed by fluctuations in the environment. Topics include the body's internal control of temperature (thermoregulation), salt and water balance (osmoregulation), nutrient levels (digestion and excretion), as well as the neural and hormonal control of these systems. [26L, 30P]

*Prerequisite:* BIO204H/specific permission of the instructor

*Recommended Preparation:* BIO210H

## BIO312H5 Plant Physiology

The principal physiological processes, and the influence of environmental factors on them, are studied in plants. Topics include photosynthesis, water relations, mineral nutrition, translocation, respiration, general metabolism, and growth. Implications for agriculture, ecology and biotechnology are identified. [26L, 39P]

*Prerequisite:* BIO204H. Students without the required prerequisite are invited to obtain permission of the instructor

## BIO315H5 Advanced Cell Biology

Uses the information learned in BIO206H to introduce students to many exciting new topics in the structure and function of normal and diseased cells. Areas of focus include membrane structure and function, cell adhesion, cellular communication, signal transduction, the cyto-skeleton, and cell movement. In the laboratory exercises, students are introduced to commonly employed techniques such as cellular fractionation, polyacrylamide gel electrophoresis, western blotting, immunolocalization and spectrophotometry. [26L, 39P]

*Prerequisite:* BIO206H, 207H, 215H

## BIO316H5 Field Course in Ecology

Students may choose from a variety of field courses offered through a cooperative arrangement among ecologists at ten Ontario universities. Most courses involve a two-week period at a field site in early May or late August, and require a major paper or project report be submitted within six weeks of course completion. A fee for room and board is usually charged over and above tuition. Lists of courses available are posted outside Room A3032, South Bldg. in January of each year. Please check this list early for balloting dates. Students must see the UTM Coordinator, Prof. J. Fullard, before registering in the course. Students register for this course in the fall, after the course has been completed.

*Prerequisite:* Permission of Coordinator

**ENV317H5 Changing Ontario Environments**

A survey of Ontario's major ecosystems with emphasis on prehistoric and historic changes. Modern environments are placed in the context of past climatic and human influences. This course requires numerous field trips to local sites, and two overnight trips. A small fee is charged to partially cover the cost of the field trips. Students must be willing to carpool. [13L, 52P]

*Prerequisite:* BIO205H

*Recommended Preparation:* ENV100Y, BIO330H

Offered in alternate years.

**BIO318Y5 Animal Behaviour**

An introductory overview of the behaviour of animals presented from a zoological perspective for Biology specialists.

Behaviour is examined as the evolved result of interaction with other animals, such as predators, potential mates and other aspects of the environment. Other topics include behavioural genetics, development, communication, motivation and the control of behaviour by physiological mechanisms. Students are required to complete an independent project. [52L, 78P]

*Exclusion:* BIO328H

*Prerequisite:* BIO151Y/(152H, 153H)

**BIO319H5 Invertebrate Zoology**

Comparative morphology of the major invertebrate phyla: protozoans, coelenterates, flatworms, nematodes, molluscs, annelids, echinoderms, and arthropods. Students learn to recognize the larger taxa within these phyla and they discover design differences in the organ systems (digestive, locomotory, reproductive, etc.) of these animals. A collection of local, identified invertebrates may be required. [26L, 39P]

*Prerequisite:* BIO151Y/(152H, 153H)

**BIO325H5 Functional Morphology of Animals**

A study of the anatomy of vertebrate and invertebrate animals at the body and organ levels of organization, emphasizing the adaptive meaning of structure. Content includes the body plans of animals, recognition of the parts of their organ systems, the comparative anatomy of the major phyla, biomechanical aspects of locomotion.

[26L, 39P]

*Prerequisite:* BIO151Y/(152H, 153H)

*Recommended Preparation:* BIO204H

**BIO328H5 Lectures in Animal Behaviour**

An introductory overview of the behaviour of animals presented from a zoological perspective for Biology specialists.

Behaviour is examined as the evolved result of interaction with other animals, such as predators or potential mates, and other aspects of the environment. Other topics include behavioural genetics, development, communication, motivation and the control of behaviour by physiological mechanisms.

**No laboratory or field work is included.**

[52L]

*Exclusion:* BIO318Y

*Prerequisite:* BIO151Y/(152H, 153H)

**BIO330H5 Plant Ecology**

Patterns of plant growth, reproduction, population dynamics, and community structure. Interactions with other plants, diseases, and animals particularly are emphasized. Labs combine readings of the primary literature and experiments conducted in local plant communities.

[26L, 36P]

*Exclusion:* BIO331H

*Prerequisite:* BIO205H

*Corequisite:* BIO360H/any other statistics course

## **BIO332Y5 Freshwater Biology**

A functional analysis of aquatic ecosystems, with emphasis on lakes. Lecture topics include: physical environments of lakes and streams; determinants of productivity of algae, zooplankton, fish and benthos; determinants of species structure of each of these groups; the processes of eutrophication and acidification. In the laboratory, aquatic measurement techniques and taxonomy and ecology of local plants and animals are emphasized. Participation in field trips will be required on September 21 and from Friday-Sunday evening September 26-28, 2003. A fee may be charged to partially cover the cost of transportation provided for field trips. [52L, 78P]

**Note:** This course should not be taken the same year as ENV317H.

**Exclusion:** BIO337H, 368H(G), 369Y(G)

**Corequisite:** BIO205H; CHM140Y

Offered in alternate years.

## **BIO334H5 Entomology**

A survey of the Class Insecta, emphasizing the functional morphology, physiology, behaviour and evolution of this highly successful group of animals. Laboratories focus on gaining proficiency in recognizing insect orders, families and genera. Students will carry out a field study of some aspect of the local insect fauna and write a term paper based upon their observations. Two insect collections are required: a general collection that illustrates the diversity of insects found in the region and a collection of species related to the field study. [26L, 39P]

**Exclusion:** BIO338H

**Prerequisite:** BIO151Y/(152H, 153H)/P.I. for students in the Forensic Science Program.

## **BIO335H5 Mycology**

A study of the biology of fungi with emphasis on their life histories, morphology, classification, ecology and significance to man. Laboratory sessions include the collection, culture, and identification of a wide variety of fungi. In addition, several experiments illustrating important aspects of fungal physiology and development are performed in the laboratory. [26L, 39P]

**Prerequisite:** BIO151Y/(152H, 153H)/any 200 level course in BIO.

## **BIO337H5 Lectures in Freshwater Biology**

A functional analysis of freshwater ecosystems with emphasis on lakes. Physical environments of lakes and streams; determinants of productivity of plankton, benthos and fish; determinants of aquatic community structure; impacts of eutrophication, acidification, and development in watersheds. **No laboratory or field work is included.** [52L]

**Exclusion:** BIO332Y, 469Y(G)

**Corequisite:** BIO205H; CHM140Y

Offered in alternate years.

## **BIO338H5 Forensic Entomology**

A survey of the Class Insecta, emphasizing the functional morphology, physiology, behaviour and evolution of this highly successful group of animals. Laboratories focus on gaining proficiency in recognizing insect orders, families and genera. Students will carry out a field study of the changes in insect faunas that occur during decomposition of carrion and write a term paper based upon their observations. Two insect collections are required: a general collection that illustrates the diversity of insects found in a region and a collection of species of forensic importance that are attracted to carrion. [26L, 39P]

**Exclusion:** BIO334H

**Prerequisite:** BIO151Y/(152H, 153H)/P.I.

## **BIO341H5 Advanced Genetics**

The following topics are covered at an advanced level: extensions to Mendelian genetics, linkage and advanced mapping analyses, mutation, extrachromosomal inheritance, quantitative genetics, population and evolutionary genetics and genetics of behaviour. [26L, 13T]

**Prerequisite:** BIO206H, 207H, 215H

## **BIO353H5 Plant Growth and Development**

Tissue and cell culture techniques are emphasized, as are applications of biotechnology to agriculture. Topics such as the hormonal control of growth and development, photoperiodicity, circadian rhythms, and environmental stimuli are studied as they influence development. [26L, 39P]

**Prerequisite:** CHM140Y; BIO151Y/(152H, 153H), P.I.

**BIO354H5 Vertebrate Form and Function**

The design and adaptive consequences of vertebrate structure. Mechanisms of locomotion, digestion, gas exchange, circulation and sensory perception are compared at the organ level. Students conduct individual laboratory dissections on selected vertebrates. [26L, 39P]

*Prerequisite:* BIO151Y/(152H, 153H), 210H

**BIO356H5 Major Features of Vertebrate Evolution**

The evolution of the vertebrates as evidenced by the fossil record. The origin and adaptive radiation of major groups including amphibians and reptiles is emphasized. Practical sessions include the study of fossils, and techniques of collection and preparation. Six laboratory sessions are held at the Royal Ontario Museum.

[26L, 39P]

*Prerequisite:* BIO151Y/(152H, 153H)

*Recommended Preparation:* BIO354H

**BIO360H5 Biometrics I**

An introduction to the basic principles and procedures of biological statistics. Topics include the nature of data, effective data presentation, the relationship of samples to populations, probability, sampling theory, descriptive statistics, estimation, comparison of samples, power testing, randomization techniques and analysis of frequencies. The laboratories involve collection and analysis of biological data. Students should combine this course with BIO361H for a complete introduction to Biometrics. [26L, 36P]

*Exclusion:* ECO220Y; PSY201H;

SOC300Y; STA220H

**BIO361H5 Biometrics II**

A sequel to BIO360H in which topics in biological statistics are presented at an advanced level. Regression, concepts of power, analyses of variance, analysis of covariance, non-parametric techniques, and computer-intensive approaches are included. Students are required to complete an independent project involving experimental design, and collection and analysis of data. [26L, 36P]

*Exclusion:* ECO220Y; PSY202H; SOC300Y; STA221H

*Prerequisite:* BIO360H/P.I.

**BIO370Y5 Microbiology**

In-depth discussion of bacterial structure and ultrastructure; physiology and nutrition; growth and cultivation; nature of viruses (bacteriophage and a limited survey of animal viruses and their properties); microbial genetics; immunology; the role of micro-organisms in medicine, industry, agriculture and ecology. [52L, 78P]

*Prerequisite:* BIO206H, 207H, 215H; CHM140Y

**JBC372H5 Molecular Biology**

The organization, storage and transmission of genetic information. Structural features of nucleic acids and genes. DNA replication and repair. Transcription mechanisms and regulation. The genetic code and protein synthesis. Introduction to mechanisms of recombination. Selected topics in biotechnology (mutagenesis, gene manipulation, PCR). [39L, 24T]

*Exclusion:* BIO372H; CHM360Y;

JLM349H(G); MGB311Y(G)

*Prerequisite:* BIO206H, 207H, 215H; CHM240Y/(241H, 261H)/(242H, 243H)

*Recommended Preparation:* CHM361H

## **BIO380H5 Human Development**

Reproduction and embryonic development in humans is emphasized. After reviewing human reproduction, the formation of sperm and eggs is analyzed, followed by an in-depth analysis of fertilization in vivo and in vitro. Early embryonic developmental processes are studied with a view to how the embryo becomes organized so that all the tissues and organs of the adult body form in the right places at the proper times. The course ends with an in-depth analysis of limb development and organ regeneration. Comparisons to model animal systems are made. The relevance of the material to such topics as human infertility, contraception, cloning, biotechnology and disease is continually addressed. [26L, 39P]

*Prerequisite:* BIO206H, 215H

*Corequisite:* BIO315H

*Recommended Preparation:* BIO204H/207H

## **ENV400Y5 Environmental Research Project**

For course description see Environment courses.

## **BIO405H5 Ecology of Communities and Ecosystems**

An advanced course dealing with quantitative principles of ecology including predator-prey interactions, competition, exploitation of plant and animal populations, plant-herbivore relationships, ecological energetics, trophic structure, and population and community dynamics. Laboratory exercises include the development of computer simulation models and critical assessment of current journal papers. [26L, 39P]

*Exclusion:* BIO417Y, 320Y(G)

*Prerequisite:* BIO205H, 360H

*Corequisite:* BIO361H

Offered in alternate years.

## **BIO407H5 Behaviour Genetics**

State of the art techniques used in the genetic, molecular, statistical and neurobiological analysis of behaviour are discussed. We focus on behaviour-genetic analysis of olfaction, foraging, rhythms and sex in three model systems (the worm *C. elegans*, the fruit fly *D. melanogaster* and the mouse). We discuss how information from these model organisms can be used to shed light on behaviour genetics of non-model organisms including humans. [26L, 13P]

*Prerequisite:* BIO207H, 360H

*Corequisite:* BIO318Y/PSY252H

*Recommended Preparation:* BIO206H, 215H, 304H

## **BIO410H5 Insect Physiology**

A lecture course with a seminar component designed to introduce the student to the physiological characteristics of insects. The physiology of the integument, metamorphosis, reproduction, diapause and the physiological basis of insect control are discussed in detail. [26L, 26S]

*Prerequisite:* BIO204H/P.I.

*Recommended Preparation:* BIO334H

## **BIO418H5 Behavioural Ecology**

An in-depth analysis of recent developments in Behavioural Ecology, including evolutionary and ecological implications of aggression, parental care, foraging, sexual selection, and predator avoidance. Examples are drawn from both invertebrates and vertebrates. Students present seminars dealing with recently published research articles as well as writing and presenting a library research project. [13L, 26S]

*Prerequisite:* BIO318Y/328H

*Corequisite:* BIO360H

Offered in alternate years.

**BIO422H5 Bioacoustics**

Sound and vibration signals are important in the lives of many animals. This course reviews acoustic signalling in insects, frogs, fish, birds and other animals and extracts general insights into the adaptive basis of signal structure. Students make a tape-recorded collection of animal sounds from the field. [26L, 15S, 24P]

*Prerequisite:* BIO318Y

**BIO434H5 Sensory Biology**

(Formerly: Advanced Topics in Whole Organism Neurobiology)

An integrated study of the biology of sensory systems in a wide range of animals. Using the traditional categories of sensory systems (e.g., vision, hearing), the course will examine how these systems both enhance and limit the natural histories of animals. The neurophysiological mechanisms of each sensory system will be placed into a natural context by examining the comparative ecology and evolution of selected organisms that use those mechanisms. [26L, 26S]

*Prerequisite:* BIO304H/318Y/P.I.

**BIO442H5 Mechanisms of Evolution**

The theory of evolution and processes of evolution are examined in detail. Topics include the evidence for evolution, basic population genetics, the neutralist/selectionist controversy, quantitative genetics, speciation, adaptation, and the units of selection. [26L, 39S]

*Prerequisite:* BIO207H

**BIO443H5 Macroevolution**

Recent developments in evolutionary biology "above the species level." Topics include: the rules and philosophies for determining phylogenies and higher taxonomic groups; historical biogeography; evolutionary rates—does evolution proceed gradually or in "fits and starts?" Is natural selection of species an "emergent" force contributing to phyletic trends that is separate from Darwinian selection on individuals? Are historical mass extinctions real? If so, how do the available data fit with explanatory hypotheses such as meteoric impacts, mass volcanic eruptions etc.? [13L, 26S]

*Prerequisite:* BIO151Y/(152H, 153H), 207H

Offered in alternate years.

**BIO452H5 Advanced Topics in Cell Biology**

This course focuses on the current state of affairs in certain areas of cell biology. Topics such as intercellular communication, cell-to-cell adhesion, cell fusion, signal transduction and differentiation are covered. Lectures and seminars involve critical discussions of recently published research articles. [39S]

*Prerequisite:* BIO315H, P.I.

Offered in alternate years.

**BIO464H5 Conservation and Biodiversity**

Biodiversity is the sum of species diversity, and also the interaction of species at population, at ecosystem and at migration-route levels; it is one barometer of environmental health. Conservation biology applies ecological and genetic principles to the problem of declining biodiversity. We discuss the species concept, quantification and cost-benefit analysis of biodiversity and extinction, causes, consequence, diagnosis and treatment of population declines, as well as the effects of different land uses on biodiversity and reserve design. A key part of this course is a case study by each student. [26L]

*Prerequisite:* BIO151Y/(152H, 153H), 205H and specific permission of instructor

*Note:* Students from a wide range of programs are encouraged to enrol.

## **JBC472H5 Seminars in Biotechnology**

A seminar course designed to introduce the students to current topics in biotechnology. Seminars will be presented by speakers from both the university and industrial community. Topics will range from scientific (latest technologies and research) to business-oriented issues (i.e., market strategies, government regulations, etc.). Students will work in teams to prepare seminars and lead discussions on current topics. [39S]

*Note:*

This course is restricted to those in the Biotechnology Specialist Program and should only be taken in the final year.

## **BIO475H5 Modern Approaches to Biotechnology**

An introduction to the theory and methodology of genetic engineering utilizing both somatic cell fusion approaches and recombinant DNA approaches. Students isolate, clone and transform genes to bacterial model systems. Aspects of current hybridoma technology, fermentation technology, immobilized enzyme and cell techniques, and protein engineering in relation to current biotechnology are discussed. [26L, 39P]

*Prerequisite:* (BIO370Y, CHM361H/362H, JBC372H)/P.I.

*Recommended Preparation:* BIO315H, PHY135Y/137Y/140Y.

## **BIO477H5 Molecular Biology of Gene Expression and Cancer**

The first part of the course examines how genes are regulated in eukaryotic cells. It also explores the field of functional genomics and in particular examines how gene expression can be monitored on a genome-wide basis using DNA microarrays. The second part of the course examines the molecular and genetic basis of Cancer including the role of oncogenes, tumor suppressor genes and cell cycle regulating proteins in the development of this disease. Lectures and seminars involve presentation and discussion of recently published research articles. [13L, 26S]

*Prerequisite:* BIO370Y; JBC372H, P.I.

*Recommended Preparation:* BIO315H; CHM362H, 371H

## **BIO478H5 Functional Genomics and Bioinformatics**

Functional Genomics utilizes a variety of modern technologies to understand the molecular, biochemical, cellular and/or physiological function of every gene in an organism's genome. Functional Genomics includes fields of study such as bioinformatics, transcriptomics, and proteomics. Lectures and seminars involve presentation and discussion of recently published research articles. [13L, 26S]

*Exclusion:* BCH441H(G); BIO472H(G)

*Prerequisite:* JBC372H

## **BIO481Y5 Biology Research Project**

Students in this course will conduct a research project under the supervision of a staff member. The course is open to third and fourth year students. Students learn how to design, carry out, and evaluate the results of a research project. Students are required to write and present a research proposal, write a term paper, and present a seminar on the results of their research project. All students interested in a research project are strongly urged to approach potential faculty supervisors several months in advance of the beginning of term. Students must obtain written permission from the faculty member whom they would like to serve as their project supervisor. Students must meet with the course coordinator three to six times per year.

*Prerequisite:* Permission of Instructor

## Chemistry

### Professors Emeriti:

A.J. Poë, B.A., B.Sc., M.A., Ph.D., D.Sc.,  
D.I.C., Sc.D.  
J.K. Reed, B.A., M.Sc., Ph.D.  
E.A. Robinson, B.Sc., Ph.D., D.Sc.  
I.W.J. Still, B.Sc., Ph.D., D.Sc.

### Professors:

M.K. Georges, B.Sc., Ph.D.  
U.J. Krull, B.Sc., M.Sc., Ph.D., FCIC  
P.M. Macdonald, B.Sc., M.Sc., Ph.D.  
D.R. McMillen, B.Sc., M.Sc., Ph.D.  
J.C. Poë, A.R.C.S., M.Sc., D.I.C., FCIC  
R.S. Prosser, B.Sc., M.Sc., Ph.D.  
J.A. Shin, B.Sc., M.Sc., Ph.D.

### Associate Chair:

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Chemistry has a vital role in modern science-based industry and in the improved material well-being and health of our society. It is being applied increasingly to the growth of our understanding of medicine, biology, materials science, geology, and many other branches of science. Chemistry also has a major role to play in solving our world-wide problems of energy conservation, environmental pollution, nuclear waste disposal and, through its important contributions to agriculture, even of famine. Many of our future advances will originate from the kind of interdisciplinary research in which chemists trained to solve problems from the molecular to the bulk level must be involved.

As an academic university-based discipline, Chemistry stands in the centre of the sciences and is recognized as a sound basis for the kind of imaginative and disciplined thinking that has application beyond science to many other occupations and endeavours. At UTM, we offer a Chemistry Program that enables a student to complete a Specialist Degree in Chemistry

over a four-year period on the campus. A Major Program is also available for students enrolled for a three year or Honours degree and who want a significant background in Chemistry. The Chemistry faculty are moving strongly towards a distinctive teaching and research specialization in the border regions between Chemistry and Biology so that there are Specialist Programs in Biological Chemistry and in Molecular Biology (co-sponsored with Biology). Our analytical chemistry has a strong focus in this direction as well and the Department offers Specialist and Major Programs in Environmental Analysis and Monitoring and a Specialist Program in Forensic Science-Chemistry.

The programs in Chemistry offered at UTM provide a very suitable preparation for those who intend to enter the work force in industry, to teach chemistry in high school, or to continue into a graduate program. They are listed in Section 8 of this Calendar. Students are urged to consult the Faculty Advisor for help in choosing the appropriate courses and programs.

It is very important to plan one's program in advance and to consult regularly (at least once a year) with a faculty advisor. (Consult Departmental Secretary, Room 4037, South Bldg./Faculty Advisor for information). It is particularly desirable to take specific courses in the year of study for which they are designed (e.g., CHM200 courses in Year II); serious timetable clashes are likely to arise if this advice is not followed. While some deviations from the Specialist/Major/Minor Programs listed are possible, students should consult the Faculty Advisor before departing from the recommended programs.

**Prerequisites for all CHM courses will be strictly enforced; students without prerequisites or written permission of the instructor may be de-registered from courses at any time.**

## CHM140Y5 The Study of Matter and Its Transformations

Matter and its transformations are studied at both the microscopic and the macroscopic levels. Topics include atomic and molecular structure, intermolecular forces of attraction and the phases of matter, organic chemical reactions and mechanisms, principles of systems at equilibrium, thermodynamics, electrochemistry and kinetics. [78L, 22P, 21T]

*Exclusion:* CHM135Y, 150Y, 132H(G), 133H(G), 137Y(G), 138H(G), 139H(G) 151Y(G)

*Prerequisite:* OAC Chemistry/Grade 12 Chemistry (SCH4U), OAC Calculus & OAC A&G/Grade 12 Advanced Functions & Introductory Calculus (MCB4U) and Grade 12 Geometry & Discrete Mathematics (MGA4U)

*Recommended Corequisite:* MAT132Y/138Y is strongly recommended and is a prerequisite for entry to most 200 level CHM courses. (Note that PHY135Y/137Y is required for Specialist programs in Chemistry.)

## CHM211H5 Fundamentals of Analytical Chemistry

A rigorous introduction to the theory and practice of classical analytical chemistry. Development and applications of basic statistical concepts in treatment and interpretation of analytical data; direct and indirect precipitations; volumetric methods; acid-base, complexometric, redox and precipitation titrations; introduction to instrumental methods; potentiometry and absorption spectroscopy. [26L, 52P, 13T]

*Exclusion:* CHM217H(G), 219H(G), 268H(G), 269H(G)

*Prerequisite:* CHM140Y; MAT132Y/138Y

## CHM221H5 Introductory Physical Chemistry

Equilibrium thermodynamics and its application to ideal and non-ideal systems: internal energy, enthalpy, entropy, free energy, chemical potential, colligative properties, phase rule and phase diagrams. Kinetics: rate laws, activated complex theory, mechanisms, measurement of very fast reaction rates. [39L, 21P, 21T]

*Exclusion:* CHM222Y(G), 223Y(G), 225Y(G), 229H(G)

*Prerequisite:* CHM140Y; MAT132Y/138Y

*Recommended Preparation:* MAT212H/232H/258Y; PHY135Y/137Y/140Y. These courses are also prerequisites for JCP321H.

## CHM231H5 Inorganic Chemistry I

Atomic structure; periodic properties of the elements; bonding theories-ionic, covalent (valence bond and molecular orbital) and metallic; structure and bonding in coordination compounds of main group elements and transition metals; descriptive chemistry of main group elements. [39L, 28P, 10T]

*Exclusion:* CHM238Y(G), 239H(G)

*Prerequisite:* CHM140Y; MAT132Y/138Y

## CHM242H5 Introductory Organic Chemistry I

Fundamentals of organic chemistry emphasizing reactions of alkanes and alkenes. The first half of a two course sequence (with CHM243H) required in the chemistry major and specialist programs. [39L]

*Exclusion:* CHM138H(G), 240Y, 241H, 247H(G), 248H(G)

*Prerequisite:* CHM140Y

## CHM243H5 Introductory Organic Chemistry II

Fundamentals of organic chemistry extending to reactions of aromatic and carbonyl compounds. Continues from CHM242H. [26L, 52P]

*Exclusion:* CHM240Y, 241H, 247H(G), 248H(G)

*Prerequisite:* CHM242H

**CHM299Y5 Research Opportunity****Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

**CHM311H5 Instrumental Analytical Chemistry**

Introduction to the basic theory and practice underlying important techniques in analytical chemistry, chosen from three major areas of instrumental analysis: spectroscopy, electrochemistry and separation science. Specific topics will include fluorescence spectroscopy, atomic spectroscopy, x-ray fluorescence, voltammetry, high resolution gas and liquid chromatography, mass spectrometry, and a brief introduction to computer applications, including Fourier transform methods.

[26L, 13T]

*Exclusion:* CHM314Y(G), 319H(G)

*Prerequisite:* CHM211H

*Recommended Preparation:* CHM221H

**JCP321H5 Introduction to Quantum Mechanics**

A first course covering basic concepts of quantum chemistry and physics. Topics include: de Broglie waves and wave-particle duality, the postulates of quantum mechanics, the Schrödinger equation, the square potential well and potential barriers, the harmonic oscillator, the rigid rotor, atoms, molecules and solids. [39L]

*Exclusion:* CHM326H(G), 327Y(G)

*Prerequisite:* PHY135Y/137Y;

MAT212H/222H/232H/258Y;

CHM221H/PHY(241H, 245H)

**JCP322H5 Introduction to Statistical Mechanics**

Statistical methods for bridging the quantum behaviour of atoms and molecules to their macroscopic properties in solid, liquid and gaseous states. The course introduces partition functions, canonical ensembles, and their application to thermodynamic properties such as entropy, heat capacity, equilibrium constants, reaction rates, and Bose-Einstein/Fermi-Dirac distribution functions. [39L]

*Exclusion:* CHM229H(G), 327Y(G)

*Prerequisite:* JCP321H

**CHM331H5 Inorganic Chemistry II: Advanced Inorganic Chemistry**

Chemistry of metallic elements.

Organometallics. Main group and transition elements. Rings, cages and clusters.

Lanthanides and Actinides. Applications of IR, UV-VIS and multinuclear NMR spectroscopy. Inorganic synthesis. Non-aqueous solvents. Structure and bonding. Catalysis and industrial processes. [39L]

*Exclusion:* CHM338H(G), 339H(G)

*Prerequisite:* CHM231H

**CHM333H5 Bioinorganic Chemistry**

Principles of inorganic chemical reactions and their application to biochemical systems: kinetics, mechanisms and thermodynamics of ligand exchange, acid-base and redox reactions involving metalloproteins and their model compounds; mechanisms of catalysis by metalloenzymes and their model compounds; therapeutic uses of coordination complexes. [39L]

*Exclusion:* CHM452H, 338H(G), 437H(G)

*Prerequisite:* CHM231H

**CHM341H5 Organic Chemistry: Mechanism and Structure**

Stereochemistry and conformational analysis; mechanisms of important types of organic reaction; pericyclic reactions; reactive intermediates. [39L]

*Exclusion:* CHM348H(G)

*Prerequisite:* CHM240Y/241H/243H

**CHM345H5 Organic Synthesis**

Methods used for forming carbon-carbon bonds will be reviewed, including reactions of the various types of nucleophilic carbon and the use of organometallic reagents.

Other topics include functional group interconversions, oxidation and reduction and the role of elements such as boron, silicon and tin in organic synthesis. [39L]

*Exclusion:* CHM345H(G), 346H(G)

*Prerequisite:* CHM240Y/241H/243H

## CHM347H5 Organic Chemistry of Biological Compounds

The chemistry of selected classes of naturally occurring molecules such as those below, with emphasis on structure, stereochemistry, properties and synthesis. Amino acids, peptides, proteins, carbohydrates, lipids, nucleosides, nucleotides, and nucleic acids. [39L]

*Exclusion:* CHM347H(G)

*Prerequisite:* CHM240Y/241H/243H

*Recommended Preparation:* CHM341H/345H

## CHM361H5 Structural Biochemistry

An introduction to the molecular anatomy and properties of the major cellular biomolecules: proteins, nucleic acids, carbohydrates and lipids. The course also covers the structural organization of membranes and nucleoproteins. Enzyme mechanisms and membrane transport phenomena will be examined in the context of structure/function relationships.

[26L, 13T]

*Exclusion:* CHM360Y; BCH210H(G), 242Y(G), 310H(G), 320Y(G), 321Y(G)

*Prerequisite:* CHM240Y/241H/243H

*Recommended Preparation:* BIO206H; CHM221H

## CHM362H5 Metabolism and Bioenergetics

Basic principles of biological energetics. Metabolic pathways for carbohydrate and lipid synthesis and degradation. Survey of amino acid and nucleotide metabolism. Integration and cellular regulation of metabolism. Intracellular signal transduction mechanisms. [26L, 13T]

*Exclusion:* CHM360Y; BCH210H(G), 242Y(G), 310H(G), 320Y(G), 321Y(G)

*Prerequisite:* CHM361H

*Recommended Preparation:* BIO206H; CHM221H

## CHM371H5 Techniques in Biological Chemistry

A laboratory course to complement CHM361H, 362H. Experiments are designed to familiarize students with techniques commonly used to study the chemical and physical properties of biological molecules. Topics covered include a wide range of chromatographic methods, the isolation and characterization of subcellular organelles, enzyme purification and kinetics, isolation and characterization of nucleic acids and lipids, and radioisotope methodology.

CHM371H is equivalent to BCH371H(G) (enrolment limited). [104P]

*Exclusion:* BCH370H(G), 371H(G)

*Corequisite:* CHM361H, 362H

## JBC372H5 Molecular Biology

(For description see Biology courses.)

*Note:* This course does not count as a CHM/JCP course in any of the Chemistry programs.

## CHM391H5 Physical Chemistry and Instrumental Analysis

This laboratory course represents an integration of the study of fundamental physical chemistry with wide-ranging applications to instrumental methods of analysis, such as separation science, electrochemistry, spectroscopy and computer methods. The course will provide a solid grounding in many of the major topics covered in analytical and physical chemistry, and the optimization of instrumental analytical measurements by the application of physical principles. [104P]

*Exclusion:* CHM314Y(G), 327Y(G)

*Prerequisite:* CHM211H, 221H

*Corequisite:* CHM311H/JCP321H

**CHM393H5 Chemical Synthesis****Laboratory**

This laboratory course comprises the synthesis of inorganic, organometallic, and organic compounds, supplemented by physical measurements (e.g., ir, uv,  $^1\text{H}$  NMR spectra, kinetics, etc.) of the products where appropriate. Approximately eight weeks each will be spent on two groups of core experiments, one in organic and one in inorganic synthesis. The remaining eight to ten weeks will be occupied by a choice of inorganic, organometallic, and/or organic experiments. [104P]

*Exclusion:* CHM338H(G), 346H(G), 348H(G)

*Prerequisite:* CHM231H, 240Y/241H/243H

*Corequisite:* CHM331H/JCP321H, CHM341H/345H

**CHM414H5 Advanced Topics in Analytical Chemistry**

Review of recent and fundamental developments of instrumentation that are revolutionizing the field of analytical chemistry as applied to biological chemistry and biotechnology. Topics will include specialized mass spectrometers, secondary ion mass spectrometry, and the GC/MS and LC/MS interfaces; a survey of surface-oriented techniques including electron spectroscopy, attenuated total reflection methods and photoacoustic spectroscopy; Fourier transform theory and methods; microcomputer communication, instrument interfacing and computational methods of chemometrics. [26L, 13T]

*Exclusion:* CHM414H(G)

*Prerequisite:* CHM311H

*Recommended Preparation:* JCP321H

**CHM422H5 NMR Spectroscopy**

Fundamentals of NMR spectroscopy including classical and quantum descriptions, NMR parameters and relaxation times, product operators, multi-dimensional NMR, and solid-state techniques. [26L]

*Exclusion:* CHM441H(G)

*Prerequisite:* JCP321H

*Recommended Preparation:* JCP322H

**CHM442H5 Developments in Organic Chemistry**

Applications of advanced fundamentals to, and recent developments in, multi-step organic synthesis. [26L]

*Exclusion:* CHM440H(G)

*Prerequisite:* CHM341H/345H

*Recommended Preparation:* CHM393H

**CHM462H5 Advances in Biological Chemistry**

Survey of recent developments in biological chemistry and applications of chemistry to study processes of biological significance. [26L]

*Prerequisite:* CHM361H

*Recommended Preparation:* CHM347H,

371H

**JBC472H5 Seminars in Biotechnology**

(For description see Biology courses.)

**CHM485H5 Dissertation Based on Literature Research**

The dissertation will be based on literature research of a given area. Introductory reading will be necessary early in the course to bring students to a level where they can appreciate the most recent work in their topic. The dissertation will be conducted under the guidance of a Chemistry faculty member on a topic other than the student's research topic in CHM489Y. A final report incorporating the aims and results of the research is required, as is an oral presentation of the work. [26S]

*Prerequisite:* CHM221H, 2.5 credits in CHM at 300 level.

**CHM489Y5 Introduction to Research in Chemistry**

An experimental or theoretical research problem in Chemistry will be investigated under the supervision of a member of the Chemistry faculty. In addition to learning to plan, conduct and evaluate a research project, students will receive training in written and oral presentation skills by writing a report, and presenting a public seminar on their work. The course is normally taken in the student's fourth program year and application for enrolment should be made to the Department in the spring of the student's third year.

Acceptance into the course is dependent on the student having achieved a satisfactory GPA, and having reached agreement with a potential supervisor, as well as having completed the course prerequisites listed below. [260P]

*Exclusion:* CHM418Y(G), 428Y(G), 439Y(G), 449Y(G)

*Prerequisite:* CHM221H, 2.5 300 level credits in CHM including two of CHM371H, 391H, and 393H. With the permission of the course coordinator one of these courses may be taken as a corequisite.

**Classics***Professor Emeritus:*

R.L. Beck, B.A., M.A., Ph.D.

*Professors:*

T.G. Elliott, B.A., Ph.D.

M. Revermann, M.A., D.Phil.

C.I. Rubincam, B.A., B.A., Ph.D.

*Discipline Representative and Faculty Advisor:*

C.I. Rubincam

Room 232, North Bldg.

(905) 828-3745

Classics is the study of the civilizations of Greece and Rome. These are of interest both in their own right and because their achievements have been the foundation of so many aspects of our own civilization: its art, languages, literatures, philosophy, government. Courses in Classics thus present background material that is indispensable for the understanding of many other studies in the Humanities.

Courses are offered at UTM in three areas. The first of these (CLA) does not require knowledge of Greek or Latin. It includes courses in Greek and Roman history, for which students may receive credit towards the Specialist Program in History. It also includes courses in Greek and Latin Literature, read in translation, and courses in mythology and religion. The other two areas are Greek (GRK) and Latin (LAT) language and literature. Beginners' courses are offered in both languages.

Most courses are offered in alternate years. Consult the Departmental Handbook which can be obtained from the Classics Secretary in March (Room 227, North Bldg.; telephone: (905) 828-3727).

For other courses in Classics see also Greek (GRK), Latin (LAT), DRE344H or 346H (when either of those courses is on ancient drama), FAH101Y, 203H, 204H, 256H, 258H; PHL200Y, 300H.

**CLA160Y5 Introduction to Classical Studies**

An introduction to major themes in the development of Greek and Roman civilization and culture through the exploration of thematically related selections from ancient literature, visual presentations, and lectures, co-ordinated with a basic historical text. [78L]

*Exclusion:* CLA130Y. May not be taken at the same time as or after CLA350Y

**CLA201H5(1) Latin and Greek in Scientific Terminology**

The study of technical and scientific terms derived from Latin and Greek: word elements, formation, analysis. The course is designed to give students in any field of specialization a better grasp of the derivation and basic meaning of English words formed from Latin and Greek elements. [39L]

**CLA202H5 The Ancient Novel**

The human and social climate in which prose fiction arose; the Greek romances of love and adventure (Heliodorus, Longus, Chariton), and the more ironical and socially conscious works of the Roman writers (Petronius, The Satyricon, and Apuleius, The Golden Ass). [26L, 13P]

*Recommended Preparation:* CLA160Y/204H/205Y/230H/231H

**CLA204H5(I) Introduction to Classical Mythology**

A survey of the myths and legends of ancient Greece (and their extension to Rome) with some consideration of their role in ancient and modern literature and art.

[39L]

*Exclusion:* CLA105H, 205Y

**CLA205Y5(I) Greek and Roman Mythology**

The divine and heroic myths of the Graeco-Roman world, with special attention to the use of myth and legend in literature and art, religious ideas and practices associated with myth, and comparisons with related mythologies. [78L]

*Exclusion:* CLA204H, 261Y

Not offered in 2003-2004.

**CLA219H5 Women in Antiquity**

A survey of the position of women in ancient Greece and Rome, with focus on women's sexuality and socialization; their economic, religious, and political roles; and their creative production in the arts. [39L]

*Recommended Preparation:* CLA160Y/230H/231H

**CLA230H5 Introduction to Greek History**

A survey of Greek history from the Bronze Age to the second century B.C. [39L]

Not offered in 2003-2004.

**CLA231H5 Introduction to Roman History**

A survey of the salient political, social and cultural developments in Roman history from the mythical beginnings to the third century A.D. [39L]

Not offered in 2003-2004.

**CLA232H5(I) Ancient Astronomy and Astrology**

Greek and Roman views of the universe; the origin and development of scientific astronomy, astrology, and star worship. [26S]

**CLA234H5(I) Ancient Science and Technology**

Early technology; the origins and development of science, and its interactions with philosophy; the achievements and limitations of ancient technology, the survival of ancient science in western culture. [26L]

Not offered in 2003-2004.

**CLA235Y5(I) Government in Classical Greece**

A survey of the major developments in the political thought and practice of the Greeks in the archaic and classical periods (c. 750-300 B.C.). [52L, 26T]

*Exclusion:* HIS485Y

Not offered in 2003-2004.

**CLA299Y5 Research Opportunity Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

**CLA301H5 Greek Epic**

The *Iliad* and the *Odyssey*, with comparative study of related texts. [39L]

*Recommended Preparation:* CLA160Y

**CLA310H5 Religion in the Roman Empire**

A study of the religions current in Graeco-Roman society of the first four centuries C.E. The course will concentrate on "pagan" religions, but their interaction with Judaism and early Christianity will also be considered. Within paganism special attention will be paid to the so-called "mystery cults".

[26L]

*Exclusion:* CLA361Y(G)

*Recommended Preparation:* Any CLA or RLG course

Not offered in 2003-2004.

**CLA346Y5 Alexander the Great and the Hellenistic Age**

The achievement of Alexander and its importance for subsequent Mediterranean history. The creation of the Hellenistic states and their historical significance. [52S]

*Exclusion:* CLA241Y

*Recommended Preparation:* Any CLA or HIS course

Not offered in 2003-2004.

**CLA350Y5 The Roman Empire**

Constitutional, economic, social, military and religious developments in the empire, from Augustus to St. Augustine. [52L, 26T]

*Exclusion:* CLA160Y if taken in the same year of study

**CLA354Y5 Caesar and Augustus**

Their work and their contribution, as well as the role of their contemporaries: Pompey, Crassus, Cicero, Antony and Brutus. Based primarily on original sources (in translation), such as the writings of Caesar, the correspondence of Cicero, and the political testament of Augustus. [52S]

*Recommended Preparation:* Any CLA or HIS course

Not offered in 2003-2004.

**CLA355H5 Constantine the Great and His Age**

Power politics and religious experience in a formative period in the development of Western civilization. [26S]

*Recommended Preparation:* CLA160/350Y

**CLA400Y5 Independent Studies**

*Prerequisite:* Permission of the Department

**CLA401H5 Independent Studies**

*Prerequisite:* Permission of the Department

# **Communication, Culture and Information Technology**

## **Communication, Culture and Information Technology**

*Program Director and Faculty Advisor:*

Dr. W. Thompson  
CCIT Office, Colman House  
[b.thompson@utoronto.ca](mailto:b.thompson@utoronto.ca)  
(905) 569-4732

The Communication, Culture and Information Technology (CCIT) program is an interdisciplinary program offered jointly by UTM and Sheridan Institute of Technology and Advanced Learning. After the first year of studies at UTM, students will take about half of their CCIT courses at UTM and the other half at Sheridan (Oakville Campus).

The CCIT program combines academic courses in the arts and sciences with hands-on applied courses in digital media and technology. Special focus is given to the role of information technology in communication and culture. CCIT probes the increasingly visual and technologically-assisted nature of communication and culture in the digital age. It aims to produce graduates who are knowledgeable and skilled communicators in a variety of new and traditional media.

The CCIT Major program may be combined with another Major as part of a double major. Students may also acquire the necessary background to enter a Specialist Program.

Entry into the CCIT Major and Specialist programs is limited and students are urged to read the program information in this Calendar very carefully. For more detailed material, refer to the CCIT web site at:  
<http://ccit.utm.utoronto.ca>

### **CCT100H5 History of Communication Technologies**

This course examines the historical evolution of communication technologies. The course will consider the evolution of language, the invention of writing, and the impact on society and culture that resulted from the invention of the printing press, the telegraph, the telephone, radio, recordings, television, and computers. [26L, 13T]

### **CCT101H5 Contemporary Communication Technologies**

This course examines different communication technologies through the analysis of different genres. The course considers contemporary written, visual, oral, electronic and musical forms. It will illustrate a range of theoretical perspectives that seek to explain the relationship between communication and technology. [26L, 13T]  
*Prerequisite:* CCT100H

*Note:*

Courses taught at Sheridan are indicated by an asterisk \*.

### **CCT200H5 Intercultural Communication \***

The route to global cooperation or global collision. This course will use a case-based approach to the study of the impact of globalization and information technologies on the formulation of relationships between people of diverse racial, ethnic, national, linguistic, and religious backgrounds. The challenges that globalization, new information and communication technologies present to traditional, culturally bound beliefs and values. The critical function of socio-cultural, socio-psychological, and historical variables in the creation of belief and value systems.

[26L, 13T]

*Prerequisite:* CCT100H, 101H

### **CCT201H5 Introduction to Visual Culture**

This course will focus on the specificity of art, architecture, photography, film, and the digital media as visual forms with their own distinct ways of communicating meaning. The course will explore a range of media and some of the historical, social, and technological contexts in the West which have shaped and continue to shape how people "see" the visual arts. [26L, 13T]

*Exclusion:* FAH201H

*Prerequisite:* CCT100H, 101H

## CCT202H5 Human Perception and Communication

Study of the anatomy and physiology of the auditory and visual systems, and how these systems are organized to facilitate pattern recognition and object identification. Special attention will be given to processing of oral and written speech in human communication. [39L]

*Prerequisite:* CCT100H, 101H, or P.I.

## CCT203H5 Performance Communication Skills

A practical and theoretical introduction to the means and range of communication skills in the human voice and body, both in live and in mediated contexts. Students will use texts from related courses and original improvisations to work on aligning and focusing the body, eliminating personal mannerisms, and using the breath and the voice confidently, convincingly, and with expression and colour, to articulate a concept or achieve a goal. The course will provide for constructive analysis of both live and videotaped performance experiences.

[13L, 26P]

*Prerequisite:* CCT100H, 101H

## CCT204H5 Design Thinking \*

An introduction to the role of design thinking in the communication of information. Emphasizes creative and critical thinking in the design process; provides the student with the theory and operational skills necessary to improve design process and problem-solving abilities. [26L, 13P]

*Prerequisite:* CCT100H, 101H, or P.I.

## CCT205H5 Digital Innovation and Cultural Transformation \*

An examination of the problems caused by the introduction of digital and computing technologies to modern culture. Topics range from the social and cultural outcomes of media convergence; effects of the digital revolution in communications technologies; the impact of miniaturization on the application of computing technologies; the relevance of virtual environments; the interplay between pre-industrial, industrial and information cultures. [26L, 13T]

*Prerequisite:* CCT100H, 101H, or P.I.

## CCT206H5 Intellectual Property and Copyright

This course will provide a detailed review of copyright, trademark and patent law with a special emphasis on how they apply to digital media. This course will also review the law of contract as it applies to digital industries and investigate the relevant tort law. In addition, other regulatory issues will be discussed such as telecommunications and broadcasting law both from a Canadian and an international perspective. [26L, 13T]

*Prerequisite:* CCT100H, 101H, or P.I.

## CCT210H5 Signs, Referents, and Meaning

How written or spoken statements, gestures, and aesthetic objects come to have meanings. How we recognize and fail to recognize such meanings. The nature, systems, and processes of interpretation. The role of mental models. [26L, 13T]

*Exclusion:* VIC120Y(G)

*Prerequisite:* CCT100H, 101H

## CCT220H5 Semiotics and Communication Theory

A study of the systems and processes of verbal and non-verbal communication through the science that investigates the comprehension and production of signs. Sign systems in a variety of contemporary modes and genres (language, literature, cinema, advertising, the media, art, and gestures) will be scrutinized through the works of major semioticians such as Barthes, Eco, Greimas, Morris, Sebeok, among others. Their research will be discussed and applied to various types of representation and communication, from magazine ads to high art. [26L, 13T]

*Exclusion:* VIC120Y(G)

*Prerequisite:* CCT100H, 101H

## CCT224H5 Performance Assessment

This course will investigate measurement issues relating to managing digital enterprises. It will build on the accounting studied in MGM101H but will be a more extensive investigation of the variety of measures that are necessary to provide all the stakeholders in a digital enterprise with useful decision-focused information. The use of this information to direct and control the organization will also be discussed.

[26L, 13T]

*Prerequisite:* MGM101H, 102H

## CCT240H5 Language, Society and Culture

Natural languages in everyday use are vehicles of prepackaged assumptions, and a reflection of culture. Theories about the interchange between culture and language will be discussed (onomastics, Humboldt, Whorf, Langacker, Lakoff). Languages also can be seen as builders of group and personal identities through the role of socio-rhetorical conventions, dialects, jargon and technicalese, standard vs. non-standard speech, cyber identities, etc. Social dimensions of the use of languages throughout the world will be introduced.

[26L, 13T]

*Prerequisite:* CCT100H, 101H

## CCT260H5 Web Culture and Design \*

The course will explore how the web has influenced culture and how web sites are designed and managed. Topics will include the presentation of text, graphics, audio and video on the web. Design, web server concepts, human communication systems and organizational contexts will be considered in creating web sites using scripting languages and web software tools.

[26L, 13T]

*Prerequisite:* CCT100H, 101H, or P.I.

## CCT270H5 Introduction to Data Visualization

The graphical representation of numeric data as a form of communication. Practical details of constructing high-quality statistical graphics by hand and computer. Readings from cognitive psychology, the philosophy of aesthetics and design, and the experimental psychology of aesthetic judgment. Students will take part in demonstration experiments on how the human brain extracts information from charts and graphs. Class requirements will include designing effective graphs, making oral presentations, preparing Web pages, and writing brief passages of text to accompany graphs. [26L, 13T]

*Prerequisite:* CCT100H, 101H

## CCT280H5 History of Recent Technologies

Detailed study of the emergence of some of the new technologies - television, computers, the Internet - with attention to the social contexts that allow them to flourish.

[26L, 13T]

*Prerequisite:* CCT100H, 101H

## CCT300H5 Critical Analysis of Media \*

Analytical methods and theoretical concepts from communication and rhetoric will be applied to the analysis of contemporary media (art, film, television, journalism, advertising, and Web documents).

[26L, 13T]

*Prerequisite:* CCT210H

## VCC302H5 Visual Culture through the Post-Colonial Lens

(For description see Visual Culture and Communication courses)

## VCC304H5 Visual Culture and the Construction of Identity

(For description see Visual Culture and Communication courses)

## CCT305H5 Design and Implementation of Multi-Media Documents \*

The principles and techniques of user-centered, functional design are introduced and applied to the analysis of software interfaces and the creation of multi-media documents. The roles of shared metaphors and mental models in clear, concise and usable designs are emphasized. Students will produce multi-media documents, which make effective use of text, colour, user input, audio, still, and time-based images. [26L, 13T]

*Prerequisite:* CCT100H, 101H, or P.I.

## VCC306H5 Gender and Visual Representation

(For description see Visual Culture and Communication courses)

## CCT307H5 Language, Interaction and Society

Conversation analysis and workplace studies will be applied to data drawn from audio and video recordings to explore problems of human-machine communication and mediated human-human communication (e.g. telephone). Students will learn to transcribe and analyze conversational materials. The organization of sequences of turns and the role of gesture and other aspects of embodied talk-in-interaction will be considered.

[26L, 13T]

*Prerequisite:* CCT202H/P.I.

*Limited enrolment*

## CCT310H5 Mass Communication and Popular Culture

How does consumerism affect symbolic production, circulation and transactions? Major modern theories of mass communication will be presented (Althusser, Frankfurt school, and Marxist approaches). Students will become conversant with the structure of mass communication, popular culture systems, and their economic, technological and institutional dimensions. Possible topics are Disney, serial novels, comic books, mall design, Hollywood, radio, corporate and private Internet sites.

[26L, 13T]

*Prerequisite:* CCT210H

## CCT316H5 Human Communication and Advertising

This course examines human language and information processing in the context of advertising. The joint contributions of linguistic content and context in representing the meaning conveyed by an advertisement will be addressed in a range of topics including human inference, memory, resolution of ambiguity, attention, vagueness, linguistic presupposition, the distinction between asserted and implied claims, speech acts, language and cognition in children, and language variation. Policy and practice implications will be examined. [26L, 13T]

*Prerequisite:* CCT202H; PSY201H, PSY270H/LIN200H, or P.I.

## CCT319H5 Economics and the Digital Firm

This course presents economic principles that explain how markets help organize exchange and production among competing but nevertheless cooperating economic units. Theories of consumer demand, the economic nature and function of business firms, optimal business decision rules of monopoly, oligopoly, and anti-combines regulations, as well as game theory, are presented. Efficiency criteria pertaining to the operation of firms and markets, the role of property rights, and the scope for public policy, are also examined. [26L, 13T]

*Exclusion:* ECO100Y

*Prerequisite:* CCT224H; MGM101H, 102H

## CCT321H5 Foundations of Finance and Financial Management

This course will provide the students with an understanding of investment appraisal from a financial standpoint. It will provide them with the necessary tools to construct the financial component of a business plan or analyze the financial performance of a company. Financial markets and the venture capital market will also be investigated as will the principles of valuation. Focus will be on case studies relating to digital enterprise. [26L, 13T]

*Exclusion:* MGM230H; MGT230H, 331Y(G), 337Y

*Prerequisite:* CCT224H; MGM101H, 102H

## CCT322H5 Marketing Information Products and Services

Techniques for developing a comprehensive marketing strategy will be developed with particular emphasis on digital products and services. The nature of digital markets, approaches to advertising, pricing and such areas as versioning will also be discussed. [26L, 13T]

*Exclusion:* MGM252H; MGT252H, 352H

*Prerequisite:* CCT224H; MGM101H, 102H

## CCT324H5 Organizational Theory and Behaviour

Overview of individual and group behaviour in organizations, including motivation, communication, decision making, influence and group dynamics. Examination of major aspects of organizational design including structure, environment, technology, goals, size, inter-organizational relationships, innovation and change. [26L, 13T]

*Exclusion:* MGM362H; MGT262H, 362H; WDW260Y, 260H

*Prerequisite:* CCT224H; MGM101H, 102H

## CCT325H5 Information Systems

This course has been designed to provide students with a basic understanding of the role of computers and communication systems in modern organizations. Unlike programming courses, the focus here is on the application of computer-based systems to support information requirements for problem solving and managerial decision-making. Topics include concepts of information, humans as information processors, survey of hardware and software applications, introduction to information systems analysis and design. [26L, 13T]

*Exclusion:* CSC340H; MGM371H; MGT371H

*Prerequisite:* CCT224H; MGM101H, 102H

## CCT326H5 Communication across the Lifespan

Changes in communication from infancy to old age arise from changes in perception and cognition, as well as changes in social and environmental needs and supports. These changes will be characterized and related to relevant theories. Practical implications for information and communication technologies will be suggested. [26L, 13T]

*Prerequisite:* CCT202H/PSY280H; PSY201H, PSY210H/213H/270H/385H/LIN200H, or P.I.

## MGD327H5 Advanced Legal Issues

(For description see Management courses)

## MGD328H5 Project Management

(For description see Management courses)

## CCT330H5 Modern World Cinema

A comparative study of some of the older and younger masters of world cinema of the last 50 years from the perspective of theme, style, and aesthetics. The lectures/seminars will also include occasional workshops on the use and development of film "walkthroughs" from videocassettes, laser discs and DVDs to CDs and the web based environments. [26L, 13T]

*Prerequisite:* CCT210H

## CCT333H5 Imaging Audience in a Wired World \*

All forms of cultural and media expression are created for imagined audiences. The nature and role of audiences will be explored across multiple media. Broadcast models, interactive models, live audience, audience reading, gender, culture, and audience feedback are explore. How do we define our audience in a wired world? [26L, 13T]

*Prerequisite:* CCT100H, 101H/P.I.

## CCT345H5 Developing and Managing Networks \*

This course introduces students to the central technical concepts necessary to understand how networks are developed and operated. Specific attention will be paid to the Internet and Local Area Networks. Students will also study how networks may be managed with particular emphasis on the risks associated with different types of networks and approaches that may be adopted to mitigate them. [26L, 13T]

*Prerequisite:* CCT260H

## CCT351H5 Theory and Practice of Animation \*

This course introduces the student to the history of animation from the earliest exploration of the animated image in the early 1900's to the most current computer, traditional and web based practices. This course will focus on important stylistic, narrative and technological developments. [26L, 13T]

*Prerequisite:* CCT370H

## CCT352H5 History and Practice of Design \*

This course examines the historical development of communication design from the industrial revolution to the present. The student will focus on the emergence of design practice and theory in changing economic, technological and social contexts. [26L, 13T]

*Prerequisite:* CCT204H

## CCT353H5 Digital Media: Movement and Sound \*

This course will explore the theoretical and practical aspects of producing narrative time based imagery within a digital environment. The conceptual and digital tools as well as workflows and delivery systems that have been developed to produce images will be explored. [26L, 13T]

*Prerequisite:* CCT100H, 101H, /P.I.

## CCT355H5 E-Business Technologies \*

Students will study technologies that are essential to the successful establishment of e-business. Included in this study will be HTML, XML, HTTP, SOAP and CORBA and wireless technologies such as WML and WSL. Students will also be introduced to approaches to the processing and management of payments, security and privacy issues, and the technical aspects of Digital Rights Management. [26L, 13T]

*Prerequisite:* CCT260H

## CCT357H5 Digital Media: The Still Image \*

This course will explore the theoretical and practical aspects of producing theme based single and sequential imagery within a digital environment. We will explore the conceptual and digital tools as well as workflows and delivery systems that have been developed to produce images. [26L, 13T]

*Prerequisite:* CCT100H, 101H, /P.I.

## CCT360H5 Organizational Communication

This course covers concepts and skills common to intra and inter-organizational communication. Students will learn the dynamics of communication channel, network, flow, and climate. Special attention will be paid to the electronic, multicultural, and team-oriented character of contemporary organizations, and projects will include both written and oral components. Topics will include correspondence, proposals, reports, persuasion, conflict management, ethics, research, interviewing, and the employment portfolio. [26L, 13P]

*Exclusion:* WRI205H, 360H

*Prerequisite:* WRI203H

## CCT370H5 Introduction to Computer Visualization \*

Communication has undergone a radical shift through the development of visualization techniques based on computer technology. This course explores the ways in which computer visualization, as it has come to be called, enhances and shapes messages in diverse areas through symbolical and representational means including graphing, animation, and special effects. The students will explore and review uses of these techniques in areas such as entertainment, science and technology, management and health sciences. [26L, 13T]

*Prerequisite:* CCT260H

## CCT371H5 Music Perception and Cognition

This course will examine the cognitive foundations of music perception and performance. Consideration of processing differences between naïve and experienced listeners, biological foundations of music processing, cultural contributions to music processing, theoretical perspectives on the origins of music, music and emotion, and the non-musical implications of musical training. [26L, 13T]

*Prerequisite:* PSY201H; CCT202H/PSY270H/280H; or P.I.

Knowledge of music is strongly recommended.

## CCT379H5 Speech Perception and Production

This course will describe how speech is produced and perceived. Topics will include the neural control of speech production, how production is coordinated with perception, and how the physical and social environment influence speech communication.

Theoretical and practical issues will be explored. [26L, 13T]

*Prerequisite:* PSY201H; CCT202H/PSY280H/385H/LIN200H; or P.I.

## CCT383H5 Digitally Mediated Technologies: Lifespan and Special Population Issues \*

The course will examine the positive and negative effects of communication technology on the performance of communicators, psychological well-being and social interaction and how these effects may vary over the lifespan and for those in special populations in the contexts of work, education, housing, health care and access to public facilities. [26L, 13T]

*Prerequisite:* CCT202H/273H/PSY213H/220H

## CCT384H5 Digitally Mediated Technologies: Lifespan and Special Population Issues \*

The course will examine the positive and negative effect of the built and social environments on communication performance, psychological well-being and social interaction and how these effects may vary over the lifespan and for those in special populations in the contexts of work, education, housing, health care and access to public facilities. [26L, 13T]

*Prerequisite:* CCT202H/273H/PSY213H/220H

## CCT390H5 Contemporary Issues in CCIT

An examination of current debates in CCIT with an emphasis on the development of skills in delivering a professional presentation and writing a research paper. [39S]

*Prerequisite:* CCT210H or P.I.

## CCT400H5 Advanced Project

A survey of advanced topics related to HCT. Students will also develop skills in writing a literature review and designing a research study. [39S]

*Prerequisite:* CCT202H; PSY201H; completion of 13.0 credits

## VCC400H5 Advanced Project

(For description see Visual Culture and Communication courses)

## VCC403H5 Contemporary Asian Visual Culture

(For description see Visual Culture and Communication courses)

## CCT405H5 Individual Project

A research project carried out under the supervision of a faculty member. Students will carry out a research project on a selected topic related to HCT. Students must obtain signed permission from the faculty member who they would like to have as their supervisor..

*Prerequisite:* Completion of 13.0 credits and CCT400H (Advanced Project)

*Enrolment is limited*

## VCC405H5 Individual Project

(For description see Visual Culture and Communication courses)

## CCT410H5 Communication Internship

This course is a practical internship and is available only upon application from students registered in a Specialist program in CCIT. Through a placement, students will apply the expertise in communication, culture, and information technology that they have gained through previous courses. Students must plan well in advance for the placement and work closely with the placement officer for CCIT to determine eligibility and suitability. A report and presentation will be required at the end of the placement. These, along with the employer's assessment, will provide the main part of the course mark.

*Prerequisite:* Completion of 13.0 credits and permission of internship coordinator.

## CCT411H5 Human Communication and Technology Internship

This course is a practical internship and is available only upon application from students registered in the Human Communication and Technology Specialist program in CCIT. Through a placement, students will apply the expertise in communication, culture, and information technology that was gained through previous courses. Students must plan well in advance for the placement and work closely with the placement officer for CCIT to determine eligibility and suitability. A report and presentation will be required at the end of the placement. These, along with the employer's assessment, will provide the main part of the course mark.

*Prerequisite:* Completion of 13.0 credits and permission of internship coordinator.

## VCC411H5 Real Space to Cyberspace

(For description see Visual Culture and Communication courses)

## VCC412H5 The Corporate Eye

(For description see Visual Culture and Communication courses)

## VCC415H5 Theory and Criticism of Photography and New Media

(For description see Visual Culture and Communication courses)

## MGD415H5 E-Business Strategies

(For description see Management courses)

## MGD420H5 Global Digital Industries

(For description see Management courses)

## MGD421H5 Technological Entrepreneurship

(For description see Management courses)

## MGD422H5 Management of Technological Innovation

(For description see Management courses)

## MGD423H5 Technology in Organizations

(For description see Management courses)

## CCT424H5 Special Topics in the Management of Digital Enterprises

A series of advanced seminars and projects, designed to integrate the themes of the program and draw connections with current issues of importance in private and public-sector organizations. Particular attention will be paid to digital industries and emerging technologies. [26L, 13T]

*Exclusion:* MGT400H; MGM400H

*Prerequisite:* CCT321H, 322H, 324H;

MGM101H, 102H

## MGD425H5 Macroeconomics and the Knowledge Economy

(For description see Management courses)

## MGD426H5 Risk Management for Digital Industries

(For description see Management courses)

## Computer Science

### Professors:

A.J. Bonner, B.Sc., M.S., Ph.D.

M. Craig, B.A.Sc., M.Sc.

G.S. Graham, B.Sc., M.Sc., M.A., Ph.D.

C. Rackoff, B.S., M.Sc., Ph.D.

A. Rosenbloom, B.Sc., M.Sc.

J. Sills, B.A., B.Ed., M.Ed.

### Discipline Representative:

TBA

Office Hours: By appointment

*Faculty Advisor:* Professor C. Rackoff

Room 4063, South Bldg.

(905) 828-5352

Office Hours: By appointment

Computer Science is concerned in the broadest sense with the study of computers and of applications of computers. Its development was stimulated by the use of computers in many areas, such as Engineering, Physics, Chemistry, Biology, Statistics, and Business. Yet Computer Science involves much more than just developing techniques for these application areas.

Computer Science as a discipline encompasses a wide range of research interests. Examples are: the design and implementation of computer programming languages, the design and organization of complex computer systems, the efficient allocation and use of computer resources under various constraints, and the organization and management of vast quantities of data typical in many business applications. Computer Graphics is the study of the application of computers to the analysis and generation of pictorial information. Theoretical interests in Computer Science include the study of computability—what can and cannot be computed by machines; of complexity—the relative effort required to perform various computations; and of verification—the formal proof of the correctness of programs. Artificial Intelligence research in Computer Science is concerned with using computers to simulate intelligent behaviour, with the development of programs that can process pictorial and linguistic data, prove theorems, solve problems, etc.. Numerical Analysis is

concerned with the design, testing and analysis of numerical methods for solving computational problems in science and engineering. Course offerings in Computer Science are intended to serve a wide variety of students, ranging from those whose primary interest is in information processing, to those interested in applying computers to other fields.

Enrolment is restricted in all CSC programs. Consult the "Programs" section of the Calendar and the Department for details of how to apply. CSC108H, CSC148H, MAT102H, and MAT138Y are the standard first year courses for students who plan to continue in a Computer Science program.

For more information on the Programs consult the web sites:

[www.utm.utoronto.ca/~w3csc](http://www.utm.utoronto.ca/~w3csc) or  
[www.cs.utoronto.ca](http://www.cs.utoronto.ca)

**Note:**

No late registration is permitted in any CSC course after the first two weeks of classes.

### CSC104H5 The Why and How of Computing

Parts of a computer and its interconnection. Software: operating systems, files, interfaces. Hardware: storage media, memory, data representation, I/O devices. History of computing. Problem solving with computers: algorithms and basic programming concepts. Science and computer science; other areas of computer science such as graphics, artificial intelligence. Common computer applications: spreadsheets, databases, simulations. Implications of computers for society: computers and work, office automation, computer security. (Students will work with various applications software packages, but the aim of the course is to discuss the concepts of computer application in general, not to serve as a tutorial for specific packages.) [26L, 13T]

*Exclusion:* VIC104H/SMC104H/high-school, college or university course in computing or data processing taken in the past or concurrently.

### CSC108H5 Introduction to Computer Programming

Structure of computers; the computing environment. Programming in an object-oriented language such as Java. Program structure in an object-oriented language; classes, objects, methods, fields. Internal structure of methods: elementary data types, statements, control of flow. Arrays; searching, sorting and complexity.

[39L, 12P, 13T]

*Exclusion:* CSC139H/148H/149H/150H(G)

*Prerequisite:* Grade 12 (4U) Mathematics.

### CSC148H5 Introduction to Computer Science

Abstract data types and data structures for implementing them. Linked data structures. Encapsulation and information-hiding. Object-oriented programming in a language such as Java. Specifications. Analyzing the correctness and efficiency of algorithms and programs using mathematical reasoning. Recursion. Recurrence relations for analyzing the efficiency of recursive code.

[26L, 12P, 13T.]

*Exclusion:* CSC139H, 149H, 150H

*Prerequisite:* Two OAC courses in Mathematics OR two Grade 12 (4U) Mathematics courses, CSC108H

### CSC207H5 Software Design

An introduction to software design and development concepts, methods, and tools. Core topics: object-oriented design and programming; the role of scripting in the software development process; unit testing; version control; build management.

[26L, 13T]

*Prerequisite:* CSC148H; MAT102H

## CSC209H5 Software Tools and Systems Programming

Software techniques in the UNIX-style environment, using scripting languages and a machine-oriented programming language (typically C). What goes on in the operating system when programs are executed. Core topics: creating and using software tools, pipes and filters, file processing, shell programming, processes, system calls, signals, basic network programming. [26L, 13T]

*Prerequisite:* CSC207H/270H, 258H

## CSC236H5 Introduction to the Theory of Computation

Mathematical induction; correctness proofs for iterative and recursive algorithms; recurrence equations and their solutions (including the "Master Theorem"); introduction to automata and formal languages. (This course replaces CSC238H) [26L, 13T]

*Exclusion:* CSC238H, 240H(G)

*Prerequisite:* CSC148H; MAT102H

## CSC258H5 Computer Organization

Computer structures, machine languages, instruction execution, addressing techniques and digital representation of data. Computer system organization, memory storage devices, micro-programming. Block diagram circuit realizations of memory, control and arithmetic functions. [26L, 13T]

*Prerequisite:* CSC148H; MAT102H

## CSC263H5 Data Structures and Analysis

Algorithm analysis: worst-case, average-case, and amortized complexity. Standard abstract data types, such as graphs, dictionaries, priority queues, and disjoint sets. A variety of data structures for implementing these abstract data types, such as balanced search trees, hashing, heaps, and disjoint forests. Design, implementation, and comparison of data structures. [26L, 13T]

*Exclusion:* CSC265H(G), 378H

*Prerequisite:* CSC207H/270H, 236H/238H; STA257H

## CSC299Y5 Research Opportunity

### Program

Credit course for supervised participation in faculty research project. See page 98 for details.

## CSC300H5 Computers and Society

Privacy and Freedom of Information; recent Canadian legislation and reports. Computers and work; employment levels, quality of working life. Electronic fund transfer systems; transborder data flows. Computers and bureaucratization. Computers in the home; public awareness about computers. Robotics. Professionalism and the ethics of computers. The course is designed not only for science students, but also those in social sciences or humanities. [26L, 13T]

*Exclusion:* PSCD03H (Scarborough)

*Prerequisite:* Any half-course on computing; CGPA 2.0

## CSC309H5 Programming on the Web

An introduction to software development on the web. Concepts underlying the development of programs that operate on the web; survey of technological alternatives; greater depth on some technologies. Operational concepts of the internet and the web, static client content, dynamic client content, dynamically served content, n-tiered architectures, web development processes, and security on the web. Assignments involve increasingly more complex web-based programs. Guest lecturers from leading e-commerce firms will describe the architecture and operation of their web sites. [26L, 13T]

*Prerequisite:* CSC209H, 228H/343H

## CSC318H5 The Design of Interactive Computational Media

User-centred design of interactive systems; methodologies, principles, and metaphors; task analysis. Interdisciplinary design; the role of graphic design, industrial design, and the behavioural sciences. Interactive hardware and software; concepts from computer graphics. Typography, layout, colour, sound, video, gesture, and usability enhancements. Classes of interactive graphical media; direct manipulation systems, extensible systems, rapid proto-typing tools. Students work on projects in interdisciplinary teams.

Enrolment limited, but non-computer scientists welcome. [26L, 13T]

*Prerequisite:* Any CSC half-course, CGPA 3.0 or enrolment in CSC specialist or major program

## CSC320H5 Introduction to Visual Computing

A unified introduction to image synthesis and image analysis aimed at students with an interest in computer graphics, computer vision or the visual arts. Focus on three major topics: (1) visual computing principles – computational and mathematical methods for creating, capturing, analyzing and manipulating digital photographs (raster algorithms, image acquisition, basic image processing, image warping, anti-aliasing); (2) digital special effects – applying these principles to create special effects found in movies and commercials; (3) visual programming – using C/C++ and OpenGL to create graphical user interfaces for synthesizing and manipulating photographs. [26L, 13T]

*Prerequisite:* CSC209H/270H/(207H, proficiency in C or C++); MAT222H/248Y

## CSC321H5 Introduction to Neural Networks and Machine Learning

Supervised neural networks: the perceptron learning procedure, the backpropagation learning procedure and its applications. Elaborations of backpropagation: activation and error functions, improving speed and generalization, Bayesian approaches. Associative memories and optimization: Gibbs sampling, mean field search.

Representation in neural networks: distributed representations, effects of damage, hierarchical representations.

Unsupervised neural networks: competitive learning, Boltzmann machines, sigmoid belief nets. [26L, 13T]

*Prerequisite:* CSC207H/270H; MAT222H/248Y; STA257H.

## CSC324H5 Principles of Programming Languages

Major topics in the development of modern programming languages. Syntax specification, the evolution of programming languages (including abstract data types and object orientation, and contributions of C++ to language design), design and implementation of subprograms (including parameter passing techniques, and scope and lifetime of variables), run-time storage management (including garbage collection), and programming paradigms. Two non-procedural programming paradigms: functional programming (illustrated by languages such as Lisp, Scheme, ML or Haskell) and logic programming (illustrated by languages such as Prolog, XSB or Coral). [26L, 13T]

*Prerequisite:* CSC207H/270H, 236H/238H

## CSC340H5 Information Systems Analysis and Design

Theory, tools and techniques of information systems analysis and design. Topics include: theory of systems and organizations; structured analysis and design; user interface design. [26L, 13T]

*Prerequisite:* CSC228H/263H

**CSC343H5 Introduction to Databases**

Introduction to database management systems. The relational data model. Relational algebra. Querying and updating databases: the query language SQL. Application programming with SQL. Integrity constraints, normal forms, and database design. Elements of database system technology: query processing, transaction management. [26L, 13T]  
*Exclusion:* CSC434H(G)  
*Prerequisite:* CSC263H/(228H, 238H)/378H  
(for 2003-2004, we accept CSC209H, 238H)

**CSC350H5 Numerical Algebra and Optimization**

Floating-point arithmetic. The efficiency and stability of solution techniques for systems of linear equations and least squares problems, including LU- and QR-based methods. Eigenvalue and eigenvector calculations. Algorithms for optimization problems, including linear programming, and for systems of nonlinear equations. [26L, 13T]

*Exclusion:* CSC336H(G), ACT323H(G)  
*Prerequisite:* CSC207H/270H; MAT132Y/138Y, 222H/248Y

**CSC354H5 Discrete-Event Simulation and Modelling**

Simulation and mathematical analysis of models of queueing systems. Concentration on dynamic, stochastic, discrete-event systems. Simulation topics: selecting input probability distributions, generating random numbers and random variates, output data analysis for one or more system configurations, variance reduction techniques. Analysis topics: queueing characteristics, transient and steady-state behaviour, performance measures, the M/M/1 queue in detail, some non-Markovian queues. [26L, 13T]

*Prerequisite:* CSC209H/270H; STA107H, 250H/257H

**CSC363H5 Computational Complexity and Computability**

Introduction to the theory of computability: Turing machines, Church's thesis, computable and non-computable functions, recursive and recursively enumerable sets, reducibility. Introduction to complexity theory: models of computation, P, NP, polynomial time reducibility, NP-completeness, heuristics and approximation algorithms, lower bounds on the complexity of problems. [26L, 13T]

*Exclusion:* CSC364H, 365H(G)

*Prerequisite:* CSC236H/238H

**This course will not be offered until 2004-2005**

**CSC364H5 Computational Complexity and Computability**

General techniques for efficient algorithm design: greedy algorithms, dynamic programming; other topics may include network flow, linear programming, randomized algorithms. Introduction to complexity theory: models of computation, the classes P and NP, polynomial time reducibility and NP-completeness, provably hard problems. Introduction to the theory of computability: Church's thesis, computable and non-computable functions, reductions, the analogies between complexity and computability theory. [26L, 13T]

*Prerequisite:* CSC238H

**This course will be offered for the last time in 2003-2004**

**CSC369H5 Operating Systems**

Principles of operating systems. The operating system as a control program and as a resource allocator. The concept of a process and concurrency problems: synchronization, mutual exclusion, deadlock. Additional topics include memory management, file systems, process scheduling, threads, and protection. [26L, 13T]

*Exclusion:* CSC468H(G)

*Prerequisite:* CSC258H, 209H, 207H/270H

## CSC373H5 Algorithm Design and Analysis

Standard algorithm design techniques: divide-and-conquer, greedy strategies, dynamic programming, linear programming, randomization, and others (such as local search). Students will be expected to show good design principles and adequate skills at reasoning about the correctness and complexity of algorithms. [26L, 13T]

*Exclusion:* CSC375H(G), 364H

*Prerequisite:* CSC263H/378H

**This course will not be offered until 2004-2005**

## CSC378H5 Data Structures and Algorithm Analysis

Abstract data types such as priority queues and dictionaries. Advanced data structures for main memory resident information, such as binomial heaps, leftist trees, self-adjusting lists and balanced search trees. Algorithm analysis: worst case, average case, and amortized complexity. Introduction to lower bounds. Emphasis is given to problem solving and a theoretical treatment of the data structures. [26L, 13T]

*Prerequisite:* CSC270H, 238H; STA107H/257H

**This course will be offered for the last time in 2003-2004.**

## CSC384H5 Introduction to Artificial Intelligence

A broad introduction to the sub-disciplines of AI. Core topics: search methods, game playing and rule-based systems. Overview of: natural language understanding, knowledge representation, reasoning, planning, vision, robotics, learning and neural networks. Assignments provide practical experience, both theory and programming, of the core topics. LISP or Prolog programming is required for at least one assignment. [26L, 13T]

*Exclusion:* CSC484H(G)

*Prerequisite:* CSC324H; STA257H

## CSC492H5 Computer Science Implementation Project

This half-course involves a significant implementation project in any area of Computer Science. The project may be undertaken individually or in small groups. The project is offered by arrangement with a Computer Science faculty member.

*Exclusion:* CSC494H(G), 495H(G)

*Prerequisite:* At least three 300 level CSC half-courses and permission of the Discipline Representative.

## CSC493H5 Computer Science Expository Work

This half-course involves a significant literature search and expository work in any area of Computer Science. This work must be undertaken individually. It is offered by arrangement with a Computer Science faculty member.

*Exclusion:* CSC494H(G), 495H(G)

*Prerequisite:* At least three 300 level CSC half-courses and permission of the Discipline Representative.

*Recommended Preparation:* WRI203H

**Drama***Professors:*

B. Barton, B.A., M.A., Ph.D.  
N.E. Copeland, B.A., M.A., Ph.D.  
S. Johnson, B.A., M.A., Ph.D.  
M. Revermann, M.A., D.Phil.

*Discipline Representative and Faculty Advisor:*

Professor Nancy Copeland  
Room 258A, North Bldg.  
(905) 828-3770

*Program Coordinator:*

Patrick Young  
Sheridan College  
Trafalgar Rd. Campus  
905-845-9430  
Ext. 2709

*Sheridan Faculty:*

R. Cameron, B.A., A.G.S.M., D.Ed.  
M. Mekler, B.A., M.F.A.  
G. Peterson, B.A.  
P. Young, B.A.

Drama is the study of the relationship between the artists who create written texts intended for production, the artists who turn scripts into performances, and the audiences who experience the resulting theatrical event. Understanding drama involves the study of plays, actors, theatres, designers, and audiences from the classical Greek stage to the most modern experimental performance. It is the most interdisciplinary of the performing arts; and like all art forms, understanding is advanced by *doing* and *studying* in equal measure. Following this mandate, this program combines courses in history and theory with courses in theatre practice.

The Specialist program in Theatre and Drama Studies includes studio courses given at Sheridan College (Trafalgar Campus) by instructors in its well-established and highly professional Music Theatre Department. Graduates of this program will qualify for a Sheridan diploma as well as for a University of Toronto degree. They will be well prepared for professional audition opportunities as well as for graduate study or for secondary-school teaching of theatre arts.

For details of the Theatre and Drama Studies Program see Section 8 of this Calendar. Please note that all studio courses (DRS) and DRE421H are required for this program and that admission to them is by audition in the preceding April/May. See the Sheridan College Calendar for information about audition requirements or write:

Music Theatre Department  
Sheridan College  
1430 Trafalgar Rd.  
Oakville, Ontario  
L6H 2L1

or call:

Anne McMullen  
(905) 845-9430 ext 2577.

Entry into the academic drama courses at UTM (DRE) is not similarly restricted: with the exception of DRE421H, they may be taken by any qualified student independently of the performance courses, and a combination of them may be used toward a 7.0 credit Major or 4.0 credit Minor in Performance and Theatre (see Section 8). These courses are designed to familiarize students with a range of approaches to drama study in a variety of historical periods. The Major and Minor are focused on the academic study of theatre, performance, and film, through courses in history, theory and analysis.

The focus of Drama at UTM, both curricular and extra-curricular, is the Erindale Studio Theatre. The theatre is used for performances of Theatre Erindale, the production company of the Theatre and Drama Studies Program, and for performances of the Erindale Drama Club.

Courses in drama and drama-related topics are given in many disciplines, especially by the literature departments. A list of these courses is given with the specifications of the Theatre and Drama Studies Program (see above, Section 8), and students interested in the field are advised to consider taking some of them.

*Notes:*

1. 4.0 credits, including DRS121H and DRS122H, must be completed before students may enrol in DRS221H or DRS222H. DRE220H and DRE222H must be completed before students may enrol in DRS321H and DRS325H. 1.0 DRE credit at the 300 level must be

- completed before students may enrol in DRS421H and 425H. The Theatre and Drama Studies Specialist Program is part of a 20.0 credit Honours B.A.
2. DRS courses: these are studio courses limited by audition to those in the Theatre and Drama Studies Program; although participatory in nature, these courses may also require some written work. All DRS courses will be given on the Trafalgar Campus of Sheridan College.
  3. DRE courses: with the exception of DRE421H, these are theoretical (i.e., non-studio) courses and are open to all qualified students, although priority will be given to those in the Theatre and Drama Studies (Specialist) and Performance and Theatre (Major and Minor) programs.
  4. Students who are considering graduate work in drama are advised that seven academic (non-studio) drama courses are required to be considered for admission to the one-year MA at the Graduate Centre for Study of Drama. See the list of electives in Section 8 for potentially eligible courses offered by other departments. Interested students should consult the Graduate Coordinator of the Centre about appropriate courses.

### *Courses taught at UTM*

#### **DRE121H5 Traditions of Theatre and Drama**

An introductory survey of the forms and history of world drama from the classical period to the nineteenth century in its performance context. May include later works influenced by historical forms and one or more plays in the Theatre Erindale schedule of productions. [39L]

*Exclusion:* DRE120Y; ENG222Y(G); DRM100Y(G)

#### **DRE122H5 Modern and Contemporary Theatre and Drama**

An introductory survey of the forms and history of world drama from the late nineteenth century to the present in its performance context. May include film adaptations and one or more plays in the Theatre Erindale schedule of productions. [39L]

*Exclusion:* DRE120Y; ENG222Y(G); DRM100Y(G)

#### **DRE220H5 History of Performance**

An introduction to the techniques used in the study of theatre history, through an examination of the production histories of selected dramatic texts. Texts will be drawn from the classical, medieval and early modern Western European traditions. [26L]

*Exclusion:* DRE240H, 242H, 244H, 246H

*Prerequisite:* DRE120Y/121H/122H

#### **DRE222H5 The Performance Text**

An introduction to the techniques of dramaturgical analysis, through the study of selected dramatic texts as scripts for performance. Examples will emphasize modern and contemporary drama, as well as a range of styles, and may include one or more Theatre Erindale productions. [26L]

*Exclusion:* DRE240H, 242H, 244H, 246H

*Prerequisite:* DRE120Y/121H/122H

#### **DRE299Y5 Research Opportunity Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

#### **DRE340H5 Studies in Theatrical Design**

A seminar on a topic chosen by the instructor, having a particular focus on design. Topics in past years have included: Modernism in Stage Design 1880-1930; Illusion on the Stage; Theatre of Images. [26S]

*Prerequisite:* two of DRE220H, 222H, 240H, 242H, 244H, 246H or permission of the Faculty Advisor

**DRE342H5 Studies in Twentieth Century Performance Styles**

A seminar on a topic chosen by the instructor, having a particular focus on twentieth century theories of performance.

[26S]

*Prerequisite:* two of DRE220H, 222H, 240H, 242H, 244H, 246H or permission of the Faculty Advisor

**DRE344H5 Studies in Theatre and Drama 1**

Topics in past years have included:

Contemporary Drama in Canada; Theatre Audiences.

*Prerequisite:* 4.0 credits, including at least 1.0 Humanities course. [26S]

*Recommended Preparation:* DRE120Y/121H/122H

**DRE346H5 Studies in Theatre and Drama 2**

Topics in past years have included: Gender Conflict in the Theatre of Euripides

*Prerequisite:* 4.0 credits, including at least 1.0 Humanities course. [26S]

*Recommended Preparation:* DRE120Y/121H/122H

**DRE348H5 Studies in Theatre and Drama 3**

*Prerequisite:* 4.0 credits, including at least 1.0 Humanities course. [26S]

*Recommended Preparation:* DRE120Y/121H/122H

**DRE350H5 Film Genres in Performance**

An introduction to the concept of genre through a selection of filmed and videotaped performances, playscripts, and theoretical readings. A number of genres will be covered, including some of: comedy, melodrama, police drama, western, science fiction, and horror. [26S]

*Prerequisite:* 4.0 credits, including at least 1.0 Humanities course.

**DRE352H5 Stage to Screen**

A theoretical and historical study of the relationship between live and recorded media, with special consideration of the translation/adaption from theatrical production to film and television production. Discussion will focus on case studies. [26S]

*Prerequisite:* 4.0 credits, including at least 1.0 Humanities.

**DRE360H5 Developmental Dramaturgy**

A theoretical, historical, and practical study of the process of developmental dramaturgy. The course will include a survey and analysis of historical and contemporary interpretations of the role of dramaturgy in the creation of new work. Students will also participate in the practical application of dramaturgical strategies and techniques.

[26S]

*Prerequisite:* DRE121H, 122H, 220H, 222H

**DRE362H5 Playwriting**

An introduction to the art and craft of writing for the stage. Through a variety of practical exercises, students will be encouraged to explore the unique properties of the theatrical environment. Topics for investigation will include general issues (such as language, plot structure, characterization, metaphor, and symbolism, etc.) as well as issues specific to the theatrical context (such as theatrical time and space, movement, engagement with an audience, relationship to other theatre practitioners, etc.). The class will involve writing in and out of class, as well as exercises in effective and constructive critique of one another's work. [39S]

*Prerequisite:* 4.0 credits, including at least 1.0 Humanities; permission of instructor. Admission to this limited enrolment course will be determined by the evaluation of a portfolio to be submitted by June 1.

**DRE364H5 Canadian Theatre**

A study of theatre and drama practice in Canada, with a particular focus on the latter part of the 20<sup>th</sup> Century. The course will include a brief historical survey of Canadian theatre and drama prior to 1900 (including some textual analysis from this period). Amongst the topics to be considered are the following: regionalism; language and translation; conflicting and emergent cultural voices; theatre and politics; and collective creations. [26S]

*Prerequisite:* 4.0 credits including at least 1.0 Humanities

*Recommended Preparation:* DRE121H, 122H

## DRE366H5 Women in Theatre

An historical study of women as theatre practitioners from the early modern period to the present. Topics will include some of: women as playwrights, actresses, company managers, designers, and directors. [26S]  
**Prerequisite:** 4.0 credits including at least 1.0 Humanities  
**Recommended Preparation:** DRE121H, 122H

## DRE392H5 Independent Study 1

An independent project in theatre and drama studies, chosen by the student and supervised by a member of the faculty. The form of the project will be determined in consultation with the supervisor. A written proposal, signed by the supervisor, must be submitted for approval to the Faculty Advisor by June 1 if an "F" course, by November 1 if an "S" course. Proposal forms are available from the Faculty Advisor or the Drama Secretary. Independent Study courses may not be taken simultaneously.

*Exclusion:* DRM390Y, DRE390Y

**Prerequisite:** Permission of the Faculty Advisor, and completion of three DRM/DRE/DRS credits.

## DRE394H5 Independent Study 2

An independent project in theatre and drama studies, chosen by the student and supervised by a member of the faculty. The form of the project will be determined in consultation with the supervisor. A written proposal, signed by the supervisor, must be submitted for approval to the Faculty Advisor by June 1 if an "F" course, by November 1 if an "S" course. Proposal forms are available from the Faculty Advisor or the Drama Secretary. Independent Study courses may not be taken simultaneously.

*Exclusion:* DRM390Y, DRE390Y

**Prerequisite:** Permission of the Faculty Advisor, and completion of three DRM/DRE/DRS credits.

## DRE421H5 Production Dramaturgy

A seminar focusing on topics in production dramaturgy related to the current Theatre Erindale season. This course uses the full range of critical, historiographical, and theoretical tools in the scholarly study of plays as they are intended for production. Plays in which students will be acting as part of the Theatre Erindale season will be used as case studies for the work of the production dramaturge. **Theatre and Drama Studies Specialists must enrol in this course in conjunction with their fall-term production work in the fourth year of their program.** [26S]

*Exclusion:* DRE400Y

**Prerequisite:** 4.0 credits in DRS; DRE121H, 122H, 220H, 222H, 1.0 DRE credit at 300 level. Students who have completed fewer than 15.0 credits must submit a course enrolment form signed by the Faculty Advisor in order to register.

**Corequisite:** DRS421H, 425H

## Courses taught at Sheridan College

### Note:

Students enrolling in any DRS course will be required to pay an additional fee of \$45 per half credit / \$90 per full credit. These charges will automatically be added to your University of Toronto student account receivable.

## DRS121H5 Acting 1

This course will introduce the elements of practical Vocal, Physical, Textual, and Improvisational training for the novice actor, together with an Introduction to Theatre Organization, with an emphasis on releasing the natural impulse. In addition, the student will spend a minimum of 3 hours per week (averaged) in Stagecraft Labs gaining basic backstage and front-of-house skills, and in production-related duties. Typical production tasks are concentrated in 3- to 9-week periods and may include evenings and/or Saturdays. [117P (78 studio classes plus minimum 39 labs and/or production)]  
**Corequisite:** DRE121H/122H

**DRS122H5 Acting 2**

The continuation of Acting 1 (see above). Stagecraft Labs are replaced, outside class hours, by a minimum of 3 hours per week (averaged) of production-related duties over the term. [117P (78 studio classes plus minimum 39 labs and/or production)]

*Prerequisite:* DRS121H

*Corequisite:* DRE121H/122H

**DRS221H5 Acting 3**

Half of this course will continue and build upon the work begun in first year in Voice, Text, and Movement. The other half will be an Introduction to Scene Study, including character analysis for the actor, with realistic material from the Canadian and International repertoire. The student will be assigned a minimum of 75 hours of production-related duties outside class time over the year; typical tasks are concentrated in 3- to 9-week periods and may include evenings and/or Saturdays. [117P (78 studio classes plus minimum 39 labs and/or production)]

*Prerequisite:* At least 4.0 credits including DRS121H, 122H and DRE120Y/121H, 122H

*Corequisite:* At least one of DRE220H, 222H, 240H, 242H, 244H, 246H

**DRS222H5 Acting 4**

The continuation of Acting 3 (see above). [117P (78 studio classes plus minimum 39 labs and/or production)]

*Prerequisite:* DRS221H

**DRS321H5 Acting 5**

Vocal, Physical, and Interpretive Techniques for the developing actor now become more specialized. Clown, Period Movement, Contact Improvisation, Ensemble Singing, Intermediate Voice, Professional Practice, and various classical and contemporary Styles are included (components may vary with the availability of Guest Instructors). In addition, each student will be scheduled regularly for a half-hour Tutorial to work on acting problems in a one-on-one situation. [117P (104 studio classes plus tutorials)]

*Prerequisite:* DRS222H and permission of instructor, DRE220H, 222H

*Corequisite:* DRS325H

**DRS322H5 Acting 6**

The continuation of Acting 5 (see above). Tutorials culminate in the major solo performance and dramaturgy exercise called the Junior Project. [117P (104 studio classes plus tutorials and junior project)]

*Prerequisite:* DRS321H and permission of instructor

*Corequisite:* DRS326H

**DRS325H5 Production 1**

The student will be cast in a public production, involving 12-33 hours of rehearsal and performance evenings and Saturdays for up to 9 weeks of the term. (Note that, at this level, evening classes in other departments are not possible.) [156P (average)]

*Prerequisite:* DRS222H and permission of instructor, DRE220H, 222H

*Corequisite:* DRS321H

**DRS326H5 Production 2**

The student will be cast in a second public production, involving 12-33 hours of rehearsal and performance evenings and Saturdays for up to 10 weeks of the term. (Note that, at this level, evening classes in other departments are not possible.) [156P (average)]

*Prerequisite:* DRS325H and permission of instructor

*Corequisite:* DRS322H

**DRS421H5 Acting 7**

Work on Voice, Text, and Movement continues at an advanced level. Solo Singing, Senior Voice, Unarmed Combat, Character Mask, and Dance for Actors are included (components may vary with the availability of Guest Instructors). Regular half-hour Tutorials continue, with emphasis on the development of individual audition material. Professional Practice classes include cold reading, mock auditions, and the realities of acting as a business. Styles include Acting for the Camera, plus workshops that could range from the Greeks to Chinese Opera. [117P (104 studio classes plus tutorials)]

*Prerequisite:* DRS322H, 326H, and permission of instructor, 1.0 DRE credit at 300 level

*Corequisite:* DRS425H, DRE421H

**DRS422H5 Acting 8**

The continuation of Acting 7 (see above). [117P (104 studio classes plus tutorials)]  
*Prerequisite:* DRS421H and permission of instructor  
*Corequisite:* DRS426H

**DRS425H5 Production 3**

The student will be cast in a third public production, involving 12-33 hours of rehearsal and performance evenings and Saturdays for up to 9 weeks of the term. (Note that, at this level, evening classes in other departments are not possible.) [169P (average)]

*Prerequisite:* DRS326H and permission of instructor, 1.0 DRE credit at 300 level.

*Corequisite:* DRS421H, DRE421H

**DRS426H5 Production 4**

The student will be cast in a fourth public production, involving 12-33 hours of rehearsal and performance evenings and Saturdays for up to 10 weeks of the term. (Note that, at this level, evening classes in other departments are not possible.) [169P (average)]

*Prerequisite:* DRS425H and permission of instructor

*Corequisite:* DRS422H

**Earth Science***Professors:*

A.R. Cruden, B.Sc., Ph.D.  
H.C. Halls, B.Sc., M.Sc., Ph.D.  
P.-Y. F. Robin, M.Sc., Ph.D., P.Eng.  
D.J. Schulze, B.A., M.Sc., Ph.D.

*Discipline Representative:*

Professor H.C. Halls

*Faculty Advisor:*

Professor D.J. Schulze  
Room 3005, South Bldg.  
(905) 828-3970

Earth Science is concerned with the origin, evolution and structure of Earth (and other planets), through the analysis of physical, chemical and biological processes. In the last 40 years the field has been revolutionized by the discovery that the Earth's surface is a mosaic of plates that is continually moving, growing at mid-ocean ridges, and being consumed beneath mountain ranges. Modern global data sets provided by satellites continue to improve our understanding of these processes and of their environmental impact. Although exploration for natural resources continues to be the traditional vocation of geoscientists in the community, they are now playing a vital role responding to increased public and scientific awareness of environmental problems and issues.

Despite increasing sophistication in computer, satellite and analytical techniques, field observation remains a cornerstone of Earth Science. A career in Earth Science therefore can lead not only to laboratory or office-based opportunities, but also offers scope to work in many parts of the world, under a range of field conditions. Oil and mining companies engaged in exploration and development, and those involved with environmental hazards, such as waste disposal, are all major employers of Earth Scientists. Provincial and Federal Geological Surveys also employ Earth Scientists and offer summer field assistantships. Other employment opportunities are in consulting, universities, and museums.

UTM offers Specialist, Major and Minor programs in Earth Sciences. These programs have four main aims: (1) to teach the

fundamental processes involved in the global Earth system, with emphasis on the interactions between the solid Earth and its oceans, atmosphere and biosphere; (2) to understand the principal aspects of a sustainable and sufficient supply of natural resources; (3) to study the cause and mitigation of hazards such as earthquakes, volcanic eruptions and groundwater contamination, and (4) to learn how to minimize and adjust to global and environmental change. This approach, by focusing on a more global environmental perspective, should appeal to students who have a general interest in geological processes and their fundamental effects on the environment. Students may combine Earth Science courses with those from other fields, in any one of four approved areas of Study; Earth Science & Anthropology, Earth Science and Chemistry, Earth Science & Physics, and Geoarcheology. A specialist in Geology is also available for students interested in pursuing careers in the resource industries or graduate studies in Geology. Many of our courses will be useful to students specializing in other fields such as Commerce, Geography, History, and Biology.

**ENV100Y5 The Environment**

For description, see **Environment** courses.

**ERS103H5 Geology and Public Issues**

Issues and events of current national and international concern are examined from a geological perspective. Topics include toxic and nuclear waste disposal, finite energy and mineral resources, and a variety of natural hazards, including landslides, floods, volcanoes, earthquakes, and radon contamination. [26L]

**ERS120H5 Planet Earth**

The Earth is our planet. What do we know about its history, its structure, and its evolution? How do we know it? What do we not know? We discuss the age and origin of the Earth, its deep interior, the world of minerals, the processes that form rocks, Plate Tectonics and the origin of mountains and oceans, earthquakes, volcanoes, etc. Tutorials present some of the methods used by geologists to study the Earth as well as some films illustrating specific topics. [26L, 13T]

*Recommended Preparation:* Review of Grade 9/10 Physical Science.

**ERS201H5 Earth Materials**

(Formerly: Rocks and Minerals)

An examination of the materials that form the Earth: intrusive, volcanic and sedimentary rocks are interpreted in the context of Plate Tectonics. [26L, 39P]

*Prerequisite:* ENV100Y/(ERS103H, 120H)

**ERS202H5 Dynamic Earth**

This is an introduction to geological time and to the dynamic evolution of the surface and of the interior of the Earth. Lectures discuss the processes involved in the formation of, and modifications to, the many types of rocks making up the crust of the Earth, with particular focus on their geometry, i.e. their shapes and internal structures. Practical exercises aim to teach the methods that are used to understand the geometry of rock units and the geological history of an area from information presented in geological maps. [26L, 39P]

*Prerequisite:* ERS201H/P.I.

**ERS203H5 Rock Forming Processes**

Igneous activity, sedimentation and metamorphism are geological processes that lead to the known diversity of rocks. This course focuses on how these processes can be understood by examination of rocks in the field, in hand sample and under the microscope. [26L, 39P]

*Prerequisite:* ERS201H

## **ERS299Y5 Research Opportunity**

### **Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

## **ERS315H5 Environmental Geology**

This course will focus on Earth processes as they relate to human activities. Topics include global climate change on short and long timescales; groundwater flow and contamination; human engineering of Earth processes; geological aspects of pollution and waste disposal; and impact of extracting/using minerals, energy, soil, and other Earth resources. A series of local field studies to demonstrate specific aspects of human-planet interaction will supplement the lecture/tutorial sessions. [26L, 13T]

*Exclusion:* ERS215H

*Prerequisite:* ERS202H/203H/222H

## **ERS317H5 Geological Hazards**

Earthquakes, volcanic eruptions, tsunamis, and landslides are examples of sudden, sometimes catastrophic, events that occur in response to forces that originate deep in the Earth's interior and which, together with the action of water and wind, are continually reshaping the Earth's surface. This course will cover methods used to monitor, predict and control these potentially hazardous phenomena. Recent theories that asteroidal impacts with Earth have caused periodic mass extinctions of life will also be discussed. [26L, 13T]

*Exclusion:* ERS217H

*Prerequisite:* ERS202H/203H/222H

## **ERS319H5 Earth Resources**

The formation and global distribution of precious and industrial mineral deposits are introduced. Exploration methods and mining practices are discussed in terms of environmental effects and issues. Basic aspects of the economics and strategic importance of mineral reserves are also covered. [26L, 39P]

*Prerequisite:* ERS202H/203H/222H

## **ERS325H5 Field Camp I**

This course, held on the north shore of Lake Huron in early May, covers geological mapping skills, stratigraphic section measurements, and using computers in field geology. Recognition of rock types, fossils and geological structures in the field is used to interpret ancient geological environments. Students must pay the cost of transportation and accommodation. [10 days of field instruction]

### **Note:**

**This course is identical to GLG340H(G). UTM students must register in the Summer Session.**

*Exclusion:* GLG340H(G)

*Prerequisite:* ERS202H/203H/(220H, 222H), or equivalent from St. George or Scarborough campuses

## **ERS336H5 Remote Sensing in Geology**

Satellite imagery, aerial photography, imaging radar, airborne geophysics and elementary digital image processing are introduced. Applications include: geological mapping, analysis of mountain belts and earthquake zones, hydrocarbon and mineral exploration and environmental monitoring. [26L, 39P]

*Prerequisite:* ERS202H/203H/220H/222H  
Not offered in 2003-2004.

## **ERS337H5 Applied Environmental Geophysics**

Basic principles, instrumentation, field procedures and elementary interpretation techniques are outlined for gravity, magnetic, electromagnetic and seismic methods used in monitoring environmental problems, in archeological investigations, and in exploration of mineral deposits. Practical work emphasizes fieldwork and laboratory simulation of field surveys. [26L, 39P]

*Prerequisite:* ERS202H/203H; PHY135Y/137Y/140Y/P.I.  
Not offered in 2003-2004.

## **ENV400Y5 Environmental Internship**

For description, see Environment courses.

**ERS470Y5 Research Thesis**

Arrangements for these independent research projects must be made with an Earth Science Faculty member before registration. Copies of the completed thesis must be submitted one week prior to the end of term classes. A component of the mark will be based on an oral presentation made at the end of the course.

*Exclusion:* ERS471H/472H

*Prerequisite:* Any 2.0 credits from the ERS300 level, plus a 75% average in the last five courses taken.

**ERS471H5/472H5 Research Project**

Arrangements for these independent research projects must be made with an Earth Science Faculty member prior to registration. Copies of the completed report must be submitted one week prior to the end of term classes. Students may take both ERS471H and 472H in the same term. A component of the mark will be based on an oral presentation made at the end of the course.

*Exclusion:* ERS470Y

*Prerequisite:* Any 2.0 credits from the ERS300 level, plus a 75% average in the last 5 courses taken.

**ENV490H5/491H5 Special Topics in****Environmental Studies**

For description, see **Environment** courses.

**Economics***Professor Emeriti:*

- S.M. Eddie, B.Sc., Ph.D.  
J.E. Floyd, B.Com., M.A., Ph.D.  
M.J. Hare, B.Com.  
J.A. Hynes, A.B.

*Professors:*

- V. Aivazian, B.S., M.A., Ph.D.  
G.J. Anderson, B.A., M.Sc., Ph.D.  
A. Erosa, B.A., M.A., Ph.D.  
M. Faig, Licenciatura, M.A., Ph.D.  
G. Hamilton, B.Sc., M.A., Ph.D.  
A. Hosios, B.Eng., M.Eng., M.A., Ph.D.  
J. Maheu, B.A., M.A., Ph.D.  
R. McMillan, B.A., Ph.D.  
A. Melino, B.A., Ph.D.  
P. Oreopoulos, B.A., M.A., Ph.D.  
C. Pitchik, B.A., M.Sc., Ph.D.  
F. Reid, B.A., M.Sc., Ph.D.  
M. Stabile, B.A., M.A., Ph.D.  
J. Van Biesebroeck, B.A., M.A., Ph.D.  
X. Zhu, B.Sc., M.Sc., Ph.D.

*Assistant Chair and Faculty Advisor:*

- Professor M. Faig  
(January 2003-June 2003)  
Professor V. Aivazian  
(July 2003 onward)

*Student Advisor:*

- Hala Ali  
Rm. 226, Kaneff Centre  
(905) 828-5404

*Departmental Secretary:*

- Sherene Wi  
Rm. 207, Kaneff Centre  
(905) 828-5257

Economics is a social science that encompasses a particular range of human behaviour and has a strong influence on the structure, well-being, and development of a society.

Much of human activity is directed towards the satisfaction of material wants. In many areas of the world, the greater part of human effort must be directed towards meeting the most elemental demands for food, clothing, and shelter. Even in technologically advanced societies, where these basic requirements can be met with comparative ease, the desire for more goods

and services never appears to be fully satisfied. In consequence, every society – regardless of whether it is capitalist, socialist, or communist in political orientation – is both competitive and cooperative. It is competitive because its members contend with one another to satisfy their individual wants from a limited supply of productive resources. It is cooperative because the greatest supply of goods is available when the activity of producing them is coordinated and organized. Economics deals with any issue arising out of the conflict between the demand for goods and services, and a limited supply of resources to satisfy those demands.

Undergraduate training in economics is intended to familiarize students with the discipline of economic thinking, and to equip them for intelligent appraisal of contemporary economic problems. It is also intended to make students aware of the nature of economic science, and of the directions in which economic theory is moving.

Economic theory now makes considerable use of mathematics in some of its enquiries. A student who chooses to specialize in economics should take at least one basic course in mathematics. More such courses may be taken, and several economics courses draw on mathematical analysis.

Owing to advances in economic theory, an undergraduate degree is not sufficient to become a professional economist. For this or other reasons, graduate work may be necessary. Students who wish to do graduate work should seek advice from the Department concerning their choice of courses.

First year preparation: ECO100Y and MAT132Y/133Y/138Y.

**Note:**

The enrolment in most Economics courses above the 100 level and, therefore, in all Economics programs, is based on grades in ECO100Y and, in some cases, MAT132Y/133Y/138Y. ECO220Y/ 227Y/(STA250H, 257H)/(STA257H, 261H) (but not STA220H, 221H) is required for most 300 level ECO courses. Students should consult this Calendar and the *UTM Registration*

*Guide* (available at [www.utm.utoronto.ca](http://www.utm.utoronto.ca)) which set out the course enrolment criteria. *Not all courses are offered each year.*

**ECO100Y5 Introduction to Economics**

A survey course with emphasis on the basic concepts and techniques of macro and micro economic theory. The concepts introduced will include: national income and its determination; monetary and fiscal techniques; the derivation and use of supply and demand schedules; the theory of the firm; and principles of comparative advantage and foreign exchange fluctuations. [52L, 26T]

**Note:**

Academic performance requirements are necessary as a condition for enrolment into 200 level ECO courses. (See prerequisite information listed below).

**ECO200Y5 Microeconomic Theory**

An intermediate treatment of the basic tools of economic analysis. Applications may include: choice under uncertainty, oligopoly, industrial organization, pricing, resource allocation, externalities, public goods, income distribution and welfare economics. [52L, 26T]

*Exclusion:* ECO206Y

*Prerequisite:* ECO100Y with at least 63%

**ECO202Y5 Macroeconomic Theory and Policy**

Macroeconomics, monetary economics, economic stabilization, capital markets and international monetary economics. Theories of output, employment and the price level in closed and open monetary economies are described; and the costs and benefits of stabilization policies in the context of these theories are identified. [52L, 26T]

*Exclusion:* ECO208Y

*Prerequisite:* ECO100Y with at least 63%

*Corequisite:* MAT132Y/133Y/138Y

**ECO206Y5 Microeconomic Theory**

This course deals more rigorously with the material included in ECO200Y and is intended primarily for students in certain Specialist programs who have the prerequisites. [52L, 26T]

*Exclusion:* ECO200Y

*Prerequisite:* ECO100Y with at least 70%; MAT132Y/133Y(60%)/138Y(55%)

**ECO208Y5 Macroeconomic Theory**

This course deals more rigorously with the material included in ECO202Y and is intended primarily for students in certain Specialist programs who have the prerequisites. [52L, 26T]

*Exclusion:* ECO202Y

*Prerequisite:* ECO100Y with at least 70%; MAT132Y/133Y(60%)/138Y(55%)

**ECO220Y5 Quantitative Methods in Economics**

An introduction to the use of statistical analysis, including such topics as elementary probability theory, sampling distributions, tests of hypotheses, estimation; analysis of variance and regression analysis. Emphasis is placed on applications in economics and business problems. [52L, 26T]

*Exclusion:* BIO360H, 361H; ECO227Y; STA220H, 221H, STA250H, 257H, 261H; PSY201H, 202H; SOC300Y

*Prerequisite:* ECO100Y with at least 63%; MAT132Y/133Y/138Y

**ECO227Y5 Quantitative Methods in Economics**

This course deals more rigorously with the topics included in ECO220Y and is intended primarily for students in certain Specialist programs who have the prerequisites and for students planning to take ECO327Y.

[52L, 26T]

*Exclusion:* BIO360H, 361H; ECO220Y; STA220H, 221H, 250H, 257H, 261H; PSY201H, 202H; SOC300Y

*Prerequisite:* ECO100Y with at least 70%; MAT132Y/133Y(60%)/138Y(55%)

**ECO244Y5 Industrial Relations**

The role, structure, and performance of industrial relations within the framework of Canada's socio-economic-political system. Growth and history of the Canadian Labour movement: its philosophy and structure. Management's strategies and tactics in collective bargaining; public policy in the field of industrial relations; strikes in so-called emergency situations: the role of unions and collective bargaining in inflation. [52L]

*Exclusion:* WDW244Y(G)/244H(G)

**ECO299Y5 Research Opportunity Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

**ECO303Y5 Modern European Economic History**

The economic development of modern Europe, with emphasis on the industrialization process and agrarian change in major European countries with concentration on the period from 1750 to 1939. [52L]

*Exclusion:* ECO201Y(G)

*Prerequisite:* ECO200Y/206Y

*Limited Enrolment*

**ECO310Y5 Industrial Organization and Public Policy**

This applied microeconomics course studies the organization of economic activity in markets and non-market institutions. Emphasis is on the operation of imperfectly competitive markets and the interaction between firms. Strategic decisions by firms, such as pricing, R&D, entry, and patenting, are discussed at length using game theory. Case studies of particular industries supplement the material. Government policies affecting the private sector are also studied in detail: Regulation and deregulation of specific industries, trade policies and antidumping, and competition policy. [52L]

*Exclusion:* ECO311H, 366H, 380H

*Prerequisite:* ECO200Y/206Y; ECO220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

*Limited Enrolment*

## ECO320Y5 An Economic Analysis of Law

This course examines the economic basis for the Law. The topics covered include economic analyses of property rights, liability rules, contract law, tort law, corporate law, law and financial markets, and bankruptcy law. The appropriate economic measures of damages in tort and contract cases will be discussed. Other topics include tax law, and the choice between regulation and the common law. [52L]

*Prerequisite:* ECO200Y/206Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

and a CGPA of 2.5

*Limited Enrolment*

## ECO322Y5 History of Economic Thought

The course first explores the central ideas that have dominated controversies in the method and history of science in this century. With this material as background, several episodes in the development of economic theory are studied. The goal is an understanding of the structure of economics and its relation to the contemporary understanding of scientific method. [52L]

*Prerequisite:* ECO200Y/206Y; 202Y/208Y

*Recommended Preparation:* ECO220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

*Limited Enrolment*

## ECO323Y5 Canadian Economic History

(Formerly: Canadian Economic Development Since Confederation)

Canadian economic growth from the 1600s to World War II. The course emphasizes critical analysis, the application of economic theory to historic issues, and the analysis of empirical evidence. Topics include: indigenous people and the depletion of the beaver, employment of women and children in the early 19<sup>th</sup> century and their role in manufacturing, the consumer durable revolution of the 1920s, and the Great Depression. Some knowledge of statistics is beneficial. [52L]

*Exclusion:* ECO321Y(G)

*Prerequisite:* ECO200Y/206Y

*Limited Enrolment*

## ECO324Y5 Economic Development

Economic development and transformation of the low-income countries of Latin America, Africa and Asia. Theory and policy analysis relating to the following economic issues in these countries: higher rates of economic growth, the role of the government in resource allocation, the industrial-agricultural sector interface, inward versus outward looking trade strategies, and the international debt problem. The following problems will also be addressed: food supply, domestic savings, tax revenue, foreign exchange, foreign direct investment, high rates of inflation, benefit-cost analysis and economic planning. [52L]

*Prerequisite:* ECO200Y/206Y, 202Y/208Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

*Limited Enrolment*

## ECO325H5 Advanced Economic Theory - Macro

To develop the understanding of the economic foundations of macroeconomic theory and to develop analytical skills in constructing and solving macro economic models. [26L]

*Prerequisite:* ECO202Y with 70%/208Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

*Limited Enrolment*

## ECO326H5 Advanced Economic Theory - Micro

Content in any given year depends on instructor. Past topics include: advanced analysis of the behaviour of consumers under uncertainty; issues in poverty, inequality and social welfare; game theory and its applications to economics and political economy. [26L]

*Prerequisite:* ECO200Y with 70%/206Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

*Limited Enrolment*

**ECO327Y5 Applied Econometrics**

This course teaches you to use econometric methods. It provides a solid foundation in the theory and practice of those statistical techniques that have proved most useful for analyzing economic data. In addition, computer problem sets and a substantial empirical project (term paper) provide "hands-on training" in formulating and testing economic hypotheses. [52L, 26T]

*Prerequisite:* ECO200Y/206Y, 202Y/208Y, 220Y with 70%/227Y/(STA257H, 261H)

*Recommended preparation:* MAT222H/

248Y

*Limited Enrolment*

**ECO333Y5 Urban Economics**

This is a course on the application of economic analysis to four major areas of urban activity. The areas are land markets, housing and buildings, transportation, and public finance. In each area, we will consider the role of the government and attempt to understand the source of many current urban economic problems. [52L]

*Prerequisite:* ECO200Y/206Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

**ECO336Y5 Public Economics**

This course focuses on market failure and the appropriate role of government in response to market failure. Topics include externalities, public goods provision, and public sector reform. The course provides useful conceptual and empirical tools for analyzing policy questions and an understanding of the workings of government in Canada. [52L]

*Exclusion:* ECO236H(G)

*Prerequisite:* ECO200Y/206Y, 202Y/208Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

*Limited Enrolment*

**ECO350Y5 Special Topics in Economics**

(Formerly: Seminar on Selected Subjects)

This course covers a special topic in Economics. Content relates to instructor's area of interest, thus the course varies in focus from year to year. Students require specific prerequisites for each course.

Details are available from the Student Advisor or departmental web site. [52L]

*Exclusion:* ECO351H, 352H

*Limited Enrolment*

**ECO351H5/352H5 Special Topics in Economics**

(Formerly: Seminar on Selected Subjects)

This course covers a special topic in Economics. Content relates to instructor's area of interest, thus the course varies in focus from year to year. Students require specific prerequisites for each course.

Details are available from the Student Advisor or departmental web site. [26L]

*Exclusion:* ECO350Y

*Limited Enrolment*

**ECO356H5 Empirical Methods for Public Policy Analysis**

This course provides an opportunity for students to work with real-world data to address current public policy questions. The course discusses issues that arise when analyzing non-experimental social science data and will teach students to recognize the types of research designs that can lead to convincing policy conclusions. A hands-on approach will be emphasized. [26L]

*Prerequisite:* ECO200Y/206Y, 202Y/208Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

*Corequisite:* ECO327Y

**ECO360Y5 Economic Growth and Technological Change**

Examines economic growth and technological change for the leading market oriented industrial countries (particularly, the United States, Japan and Canada). Topics include: selected theories of capitalism; the Long Wave Kondratieff cycle; sources of long term economic growth; the economics of technological change and its importance for productivity increases; causation of the economic slowdown since 1973; the economic "miracle" of Japan; the current United States-Japanese economic interface; the costs of economic growth and technological change, and other viewpoints on the importance of economic growth as a desirable goal for industrial economies. [52L]

*Prerequisite:* ECO200Y/206Y, 202Y/208Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)

*Limited Enrolment*

## **ECO361Y5 Labour Economics**

This course brings both theory and evidence to bear on policy issues. Issues such as hours of work, participation, worksharing, gender discrimination, education and the economic impact of unions are included. [52L]

*Exclusion:* ECO239Y(G), 339Y(G)

*Prerequisite:* ECO200Y/206Y, 220Y/  
227Y/(STA250H, 257H)/(STA257H, 261H)

*Limited Enrolment*

## **ECO362H5 Economic Growth: Theory and Evidence**

Examines modern theories of economic growth. Topics include: Growth accounting, theories of physical and human capital accumulation, the economics of ideas, economic institutions, and theories of endogenous growth. The discussion will stress the empirical implications of the theories and the relation of these hypotheses to the data and evidence. [26L]

*Exclusion:* ECO451H(G)

*Prerequisite:* ECO200Y/206Y, 202Y/208Y;  
MAT132Y/133Y/138Y

*Recommended Preparation:* ECO220Y/  
227Y/(STA250H, 257H)/(STA257H, 261H)

## **ECO364H5 International Trade Theory**

An analysis of the nature, effects and policy implications of international trade theory; the theories of comparative costs and reciprocal demands, factor reward equalization, international tariffs and customs unions. [26L]

*Exclusion:* ECO328Y(G), 230Y(G)

*Prerequisite:* ECO200Y/206Y, 202Y/208Y  
*Limited Enrolment*

## **ECO365H5 International Monetary Economics**

An analysis of the nature, effects and policy implications of international finance; balance-of-payments, and foreign exchange analysis; liquidity problems and topics related to current problems in international finance. [26L]

*Exclusion:* ECO328Y(G), 230Y(G)

*Prerequisite:* ECO200Y/206Y, 202Y/208Y,  
220Y/227Y/(STA250H, 257H)/(STA257H,  
261H)

*Limited Enrolment*

## **ECO369Y5 Economics of Health**

This course introduces students to the role of economics in health care and health policy. It is meant to be a survey of major topics in health economics and an introduction to the ongoing debate over health care policy.

Topics include the economic determinants of health, the market for medical care, the market for health insurance, the role of government in health care, and health care reform. [52L]

*Prerequisite:* ECO200Y/206Y, 202Y/208Y,  
220Y/227Y/(STA250H, 257H)/(STA257H,  
261H)

*Limited Enrolment*

## **ECO370Y5 The Economics of Organizations**

The determinants of the boundary between organizations and markets. Problems of centralization vs. decentralization, authority, coordination and motivation within organizations. Incentives, ownership and property rights. The nature of the employment relationship: explicit and implicit contracts, compensation, relative performance evaluation, career paths, job assignments and promotion. [52L]

*Exclusion:* ECO381H, 426H(G);  
MGT310Y(G)

*Prerequisite:* ECO200Y/206Y, 220Y/  
227Y/(STA250H, 257H)/(STA257H, 261H)  
*Limited Enrolment*

## **ECO372H5 Game Theory and Economic Strategy**

This course develops the basic tools of non-cooperative games in extensive and normal form. While there is no formal math requirement, a reasonable level of mathematical ease and sophistication is required. The emphasis is on providing a game theoretic analysis of a variety of models that might be useful in economics and other disciplines like political economy and biology. [26L]

*Prerequisite:* ECO200Y/206Y, 220Y/227Y/  
(STA250H, 257H)/(STA257H, 261H)

*Limited Enrolment*

**ECO373Y5 The Environment:  
Perspectives from Economics and  
Ecology**

(Formerly ECO373H)

The course begins by examining the basic principles of environmental economics and ecology. It then examines the interaction between ecological and economic factors, and assesses alternative criteria and objectives for environmental policy; the claim that there are conflicts between economic and ecological objectives is carefully scrutinized. Problems associated with the implementation of environmental policy are also discussed. Policies designed to mitigate and reverse environmental damage are examined through case studies.

[52L]

*Exclusion:* ECO313H(G)*Prerequisite:* ECO100Y with at least 63%, ENV100Y, ECO200Y/BIO205H*Limited Enrolment***ECO380H5 Managerial Economics I:  
Competitive Strategy**

(Formerly MGT310Y1)

This is a course in applied microeconomics. It is concerned with the functioning of markets and the behaviour of firms within these markets. The focus is on the strategic relationships between organizations. This includes competitive relationships among firms in the same market, and cooperative relationships between a firm and its suppliers and distributors. [26L]

*Exclusion:* ECO310Y*Prerequisite:* ECO200Y/206Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)**ECO381H5 Managerial Economics II:  
Personnel Economics**

(Formerly MGT310Y1)

This course examines selected material on compensation and incentives in hierarchical organizations. Topics include recruitment and hiring, training, turnover, downsizing, motivating workers, teams, allocating authority and task assignment. [26L]

*Exclusion:* ECO370Y, 426H(G)*Prerequisite:* ECO200Y/206Y, 220Y/227Y/(STA250H, 257H)/(STA257H, 261H)**ECO420Y5 Reading Course, Seminar or  
Workshop**

Primarily for advanced Specialist students who have exhausted course offerings in a particular subject area. Open only when a faculty member is willing and available to supervise. Students must obtain the written approval of the Assistant Chair before enrolling. See the Student Advisor for details.

*Exclusion:* ECO421H, 422H**ECO421H5/422H5 Reading Course,  
Seminar or Workshop**

Primarily for advanced Specialist students who have exhausted course offerings in a particular subject area. Open only when a faculty member is willing and available to supervise. Students must obtain the written approval of the Assistant Chair before enrolling. See the Student Advisor for details.

*Exclusion:* ECO420Y**ECO460H5 The Economics of Financial  
Risk Management I**

(Formerly ECO460Y)

This course includes a discussion of financial risks and the role of financial risk management in private and public sectors; evaluating the private and social gains from financial risk management; basic derivative securities such as options, futures and swaps and models for valuing and hedging derivative securities. [26L]

*Exclusion:* ECO460Y*Prerequisite:* ECO220Y with 70%/  
ECO227Y/(STA257H, 261H)**ECO461H5 The Economics of Financial  
Risk Management II**

(Formerly ECO460Y)

A sequel to ECO460H. This course focuses on how to use derivative securities to manage financial risks. It includes a discussion of why firms should hedge financial market risk, identification and quantification of financial risks; the value-at-risk (VaR) measure of risk; credit risk and capital allocation and difference between speculation and hedging. [26L]

*Exclusion:* ECO460Y*Prerequisite:* ECO460H

## English

### Professors Emeriti:

J. Dutka, M.A., Ph.D.  
J. Skvorecky, Ph.D., FRSC  
R.W. Van Fossen, A.M., Ph.D.

### Professors:

J. DeLombard, B.A., M.A., Ph.D.  
M. Garson, B.A., M.A., Ph.D.  
R. Greene, B.A., D.Phil.  
M.J. Levene, B.A., M.A., Ph.D.  
R.R. McLeod, A.B., M.A., Ph.D.  
L. Munk, B.A., M.A., Ph.D.  
L. Thomson, B.A., M.A., Ph.D.  
D. White, B.A., M.A., Ph.D.

### Associate Chair and

Faculty Advisor: Professor L. Thomson  
(905) 828-3737

The Department of English offers a wide range of courses. Whether an individual course provides a knowledge of one author or one genre or an entire period, its aim is to deepen the student's awareness and appreciation of a distinguished literary tradition. More broadly, studying English develops skills of analysis and expression that are required by all areas of research, business, and professional activity, and that are essential to success both within and beyond University.

Courses are arranged in four levels. This gradation denotes the level of work expected in the classroom. Thus, courses in the 100 level are introductory; the 200 level provides courses at an intermediate level; and more advanced courses appear in the 300 and 400 level. (Students from outside the Faculty wishing to take English courses should consult the Associate Chair of the Department.)

The Specialist Program outlined in Section 8 provides the student with the opportunity to become acquainted with a range of authors, periods, and critical approaches. Students contemplating graduate degrees should consult their instructors about graduate school requirements, including the customary language requirements. Similarly, students considering a teaching career in Ontario should consult the Ontario Institute for Studies in Education/UT about the

requirements for Senior certification. The student who desires information beyond what is set forth in this Calendar may obtain a brochure from the English office (Room 227, North Bldg.). This describes the content of courses in full detail and supplies lists of texts suggested by the individual instructors. Guidance is available from the Faculty Advisor as well as from other members of the English Faculty.

Students may take a limited number of courses on the St. George Campus. See page 98 for the regulations governing this option.

### Note:

The 100 level courses, designed to increase the students' skills in close reading, interpretation and effective writing, emphasize the development of analytical and essay-writing skills and build the acquaintance with major literary forms and conventions that students need in more advanced English courses. They are open to all students who have standing in no more than one full course in English. ENG100H is a course in general writing skills relevant to a wide range of university subject areas. ENG110Y explores the nature of narrative in a variety of fictional and non-fictional, poetic, and cinematic forms. ENG120Y approaches the diversity of literature in English historically, dealing with works from many different periods. ENG140Y approaches this diversity more geographically, focusing on contributions made to modern and contemporary literature in English in various areas of the world. ENG110Y, ENG120Y, and ENG140Y are equivalent to one another in that any one of them can be used in fulfillment of a Specialist, Major, or Minor Program. Students with fewer than four full credits may enrol in ENG201Y and ENG202Y provided they enrol in one of ENG110Y, ENG120Y, or ENG140Y as a corequisite. ENG100H may not be used to meet the requirements of any English program.

**ENG100H5 Effective Writing**

A course designed to develop competence in writing expository and persuasive prose for academic and other purposes. It aims to teach the principles of clear, well-reasoned prose and their practical applications; the processes of composition (drafting, revising, final editing); the conventions of various prose forms and different university disciplines. The course does not meet the needs of students primarily seeking to develop English language proficiency. [39L]

*Exclusion:* ENG103Y

**ENG110Y5 Narrative**

This course explores the stories that are all around us and that shape our world: traditional literary narratives such as ballads, romances, and novels, and also the kinds of stories we encounter in non-literary contexts such as journalism, movies, myths, jokes, legal judgments, travel writing, histories, songs, diaries, biographies. [78L]

**ENG120Y5 Genre and Meaning**

An exploration of how major literary forms in poetry and prose shape both what the writer can perceive and express and how the reader receives and interprets the text. We shall consider a variety of literary genres from 1350-1940, such as comedy, elegy, satire, epic, ode, autobiography, detective story. [78L]

**ENG140Y5 Literature For Our Time**

An exploration of how twentieth-century literature responds to our world through major forms of poetry and prose, in texts drawn from a variety of national literatures. At least nine authors such as: Faulkner, Gordimer, Joyce, Morrison, Munro, Naipaul, Rushdie, White, Woolf; Beckett, Highway, O'Neill, Shaw, Soyinka, Stoppard; Eliot, Frost, Heaney, Page, Plath, Rich, Wayman, Walcott, Yeats. [78L]

**Note:**

**200 level courses** are open to students who have obtained standing in one full 100 level ENG course, or in at least four full courses in the Faculty. Students without this prerequisite may enrol in ENG201Y or ENG202Y if they are concurrently enrolled in any of ENG110Y, ENG120Y, ENG140Y. Students in a Specialist, Major, or Minor program in English are required to take either ENG201Y or ENG202Y.

**ENG201Y5 Reading Poetry**

An introduction to poetry, through a close reading of texts, focusing on its traditional forms, themes, techniques, and uses of language; its historical and geographical range; and its twentieth-century diversity. [78L]

*Exclusion:* ENG227Y

*Corequisite:* For students with fewer than four full credits, one of ENG110Y/120Y/140Y

**ENG202Y5 Major British Writers**

An historical and critical introduction to the essential and influential texts that have helped ground our literary heritage. Works by at least 14 of the following writers: Chaucer, Spenser, Shakespeare, Donne, Milton, Bunyan, Dryden, Congreve, Pope, Swift, Fielding, Austen, Blake, Wordsworth, Coleridge, Keats, Tennyson, Browning, Dickens, George Eliot, Joyce, Woolf, T.S. Eliot. Works will be selected to include all major literary periods and to include poetry, drama, and fiction. [78L]

*Corequisite:* For students with fewer than four full credits, one of ENG110Y/120Y/140Y

**Note:**

Not all of the following courses are offered every year. For courses to be offered in 2003-2004, please consult the English Department brochure, available in April from the department or on the UTM web site.

## ENG213H5 The Short Story

An introduction to fiction through short stories of various kinds, written mainly in the 19th and 20th centuries by such authors as Hawthorne, Poe, James, Conrad, Kipling, Joyce, Lawrence, Mansfield, Faulkner, Hemingway, Singer, Gallant. [39L]

## ENG214H5 The Short Story Collection

A study of interrelated short story collections written and put together by such authors as Kipling, Joyce, Lawrence, Hemingway, Mansfield, Salinger, Roth, Laurence, Faulkner, O'Connor, and Gallant. [39L]

## ENG215H5 The Canadian Short Story

A study of Canadian short fiction in English since its beginnings. A wide variety of regions, periods, styles, and writers will be considered. Works by authors such as Callaghan, Ross, Laurence, Gallant, Munro, Buckler, Hood, Hodgins, and Atwood will be included. [39L]

## ENG216Y5 Twentieth-Century Canadian Fiction

The vitality of modern and contemporary Canadian fiction is acclaimed both nationally and internationally. This course examines the work of writers who have achieved world-wide recognition as well as others who have added significantly to our knowledge of ourselves and our country. Twelve or more works by writers such as Leacock, Callaghan, MacLennan, Ross, Buckler, Wilson, Davies, Gallant, Richler, Watson, Laurence, Wiseman, Kroetsch, Hodgins, Wiebe, Clarke, Munro, Atwood, Findley, Ondaatje. [78L]

## ENG220Y5 Shakespeare

A study of about twelve plays by Shakespeare, representing the different periods of his career and the different genres he worked in (comedy, history, tragedy). Such plays as: *Romeo and Juliet; A Midsummer Night's Dream; Richard II; Henry IV, parts I and II; Henry V; Twelfth Night; Measure for Measure; Hamlet; King Lear; Antony and Cleopatra; The Tempest.* Some non-dramatic poetry may be added. [78L]

## ENG223H5 Canadian Drama

Canadian plays, with emphasis on major playwrights and on developments since 1940, but with attention also to the history of the theatre in Canada. [39L]

## ENG233Y5 Major Women Writers

A study of at least eight and not more than twelve major women writers. The course will include works of poetry and fiction; drama and non-fiction may also be represented. [78L]

## ENG234H5 Children's Literature

An historical and critical study of poetry, fiction and drama written for or appropriated by children. Works by at least 12 authors, such as Bunyan, Defoe, Stevenson, Carroll, Twain, Milne, Tolkien, Norton, and Andersen. [39L]

## ENG236H5 Detective Fiction

At least 12 works by such authors as Poe, Dickens, Collins, Doyle, Chesterton, Christie, Sayers, VanDine, Hammett, Chandler, Faulkner, P.D. James, Rendell. [39L]

## ENG237H5 Science Fiction and Fantasy

The literature of possible worlds and thought experiments. Science fiction invents or extrapolates an inner or outer cosmology from the physical, life, social, and human sciences, and fantasy animates a supernatural universe. Typical subjects include AI, alternate histories, holocaust, space-time travel, strange species, theories of everything, utopias or dystopias. [39L]

## ENG250Y5 American Literature

Introductory survey of major works in American literature. Works by about 12 authors writing in a variety of genres, including not only poetry and fiction, but also essays and slave narratives. Representative authors include Hawthorne, Melville, Thoreau, Emerson, Harriet Jacobs, Douglass, Twain, Whitman, Dickinson, James, Wharton, Faulkner, Cather, Hurston, Eliot, Frost, Brooks, Stevens. [78L]

**ENG252Y5 Canadian Literature in English**

An introductory survey of Canadian poetry, prose, and drama, consisting of the work of at least twelve writers, at least one of them of Native Canadian origin. At least one third of the material studied will date from before 1950, but attention will also be given to very recent work. The course will include works by at least eight of the following: Moodie, Lampman, Leacock, Pratt, Klein, Ross, Birney, Davies, Laurence, Reaney, Munro, Atwood. [78L]

**ENG253Y5 World Literatures in English**

A study of approximately 12 writers from diverse English-speaking cultures, for example, those of Africa, Australia, India, New Zealand, and the West Indies. Authors include at least six of the following: Achebe, Coetzee, Gordimer, Ngugi, p'bitek, Soyinka; Keneally, Stead, Stow, White; Narayan, Rao, Rushdie; Frame; Bennett, Braithwaite, Harris, Naipaul, Walcott. [78L]

**ENG259Y5 Literature and the Environment**

Writers have helped define for us what constitutes "nature" and our proper relationship to it in such forms as Renaissance pastoral, Romantic lyric, and modern fiction and poetry. The course will examine the role that literature has played in creating our awareness of the "environment." At least 12 works by writers such as Shakespeare, Marvell, Wordsworth, Coleridge, Thoreau, Emerson, Whitman, Dickens, Hardy, Pratt, Lawrence, Frost, Jeffers, Engel, Atwood. [78L]

**ENG266H5 The English Vocabulary: Its History, Structure and Meaning**

A study of the principles underlying the continual change of words and meanings that characterizes a living language. [39L]

**ENG299Y5 Research Opportunity Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

**Note:**

300 level courses are open to students who have obtained standing in at least four full courses in the Faculty, at least one of which must be an ENG course. Students should note the special prerequisites for ENG369Y, ENG390Y, and ENG391Y, and they should consult the Department's brochure for instructions about applying for these courses.

**ENG300Y5 Chaucer**

The foundation of English literature: in their uncensored richness and range, Chaucer's works have delighted wide audiences for over 600 years. Includes *The Canterbury Tales*, with its variety of narrative genres from the humorous and bawdy to the religious and philosophical, and *Troilus and Criseyde*, a profound erotic masterpiece. [78L]

**ENG302Y5 Poetry and Prose, 1500-1600**

Poetry: Wyatt and Surrey, Sidney, Marlowe, Shakespeare, Spenser (including *The Faerie Queene*, at least two Books, and the *Mutabilitie Cantos*), and Donne. Other poets may be added. Prose: More, *Utopia*; and Sidney, *Defence of Poetry*. Selections from at least two of: Elyot; Ascham; Hakluyt; Hooker; Lylly; Sidney, *Arcadia*; Nashe and Deloney. Supplementary readings from such authors as Erasmus, Castiglione, Machiavelli, and Ariosto may be prescribed. [78L]

**ENG304Y5 Poetry and Prose, 1600-1660**

Literature in an age of Civil War, intellectual revolution, and religious upheaval, from Donne and Jonson to Milton and Marvell. Such prose writers as Bacon, Burton, Browne and Traherne will also be studied. [78L]

**ENG306Y5 Poetry and Prose 1660-1800**

Writers of this period grapple with questions of authority and individualism, tradition and innovation, in politics, religion, knowledge, society, and literature itself. Special attention to Dryden, Pope, Swift, Johnson, and at least six other authors. [78L]

## ENG308Y5 Romantic Poetry and Prose

Poetry and critical prose of Blake, W. Wordsworth, Coleridge, Byron, P.B. Shelley, Keats; may include brief selections from other writers such as Crabbe, Dorothy Wordsworth, Scott, Landor, Mary Shelley, Clare, De Quincey. [78L]

## ENG312Y5 Victorian Poetry and Prose

Writers (such as Darwin, Tennyson, Browning, Wilde, Nightingale, Christina Rossetti, Kipling) respond to crisis and transition: the Industrial Revolution, the Idea of Progress, and the "Woman Question;" conflicting claims of liberty and equality, empire and nation, theology and natural selection; the Romantic inheritance, Art-for-Art's Sake, *Fin de siècle*, and "Decadence." [78L]

## ENG322Y5 Fiction Before 1832

A study of major and minor works of fiction, illustrating the emergence of prose fiction as a genre recognized in both a literary and a commercial sense. Authors studied will include Defoe, Richardson, Fielding, Sterne, Scott, and Austen. [78L]

## ENG324Y5 Fiction, 1832-1900

Explores the works of a great age of fiction and its responses to moral, social and political dilemmas. At least twelve novels by such authors as Dickens, Trollope, Thackeray, the Brontës, George Eliot and Hardy. [78L]

## ENG328Y5 Fiction, 1900-1960

At least twelve works, including one or more by each of James, Conrad, Joyce, Lawrence, and Faulkner. [78L]

## ENG329H5 British Fiction Since 1960

At least six works by at least four contemporary British novelists, such as Beckett, Burgess, Fowles, Golding, Lessing, Spark, Thomas. [39L]

*Exclusion:* ENG217H

## ENG332Y5 Drama to 1642

English drama from its beginning to the closing of the public theatres during the English Civil War: medieval plays; Tudor interlude; Elizabethan, Jacobean and Caroline history, tragedy, comedy, tragicomedy, and romance; special attention to Shakespeare (reflecting the range of his career) and his contemporaries, particularly Marlowe and Jonson. [78L]

## ENG338Y5 Modern Drama

A minimum of twenty representative modern plays, one or more by at least five of Beckett, Churchill, O'Casey, O'Neill, Pinter, Shaw, Stoppard, Synge, Williams, Yeats; background readings from other dramatic literatures. [78L]

## ENG339H5 Drama in English Since 1960

At least ten plays by at least six contemporary British and American dramatists, such as Pinter, Albee, Stoppard, Orton, Bond, Storey, Mercer, Griffiths, Shaffer, Shepard, Sackler, Terry. [39L]

*Exclusion:* ENG224H

## ENG348Y5 Poetry, 1900-1960

Special study of Hopkins, Yeats, Pound, Eliot, Stevens; selections from other poets. [78L]

## ENG349H5 Poetry in English since 1960

Works by at least six contemporary poets, such as Dickey, Ginsberg, Heaney, Howard, Hughes, Larkin, Lowell, Plath, Warren. [39L]

*Exclusion:* ENG229H

## ENG356H5 Topics in Canadian Literature

Topics and issues in Canadian writing from its beginnings, covering a variety of genres. Topics vary from year to year; details are listed in the departmental brochure. Topics may include: ethnic identity, periodical writing, forms of narrative, the individual and the community, realism and symbolism, nationalism and culture. [39L]

**ENG358Y5 American Literature before****1880**

Studies in nineteenth-century American literature focusing on writers of the American Renaissance. At least five authors from the following list will be studied: Emerson, Cooper, Poe, Stowe, Melville, Hawthorne, Thoreau, Fuller, Whitman, Dickinson, James. [78L]

**ENG359Y5 American Literature 1880-1960**

A study of major currents in American writing between 1890 and 1960, covering at least five authors such as James, Twain, Wharton, Dreiser, Dos Passos, Cather, Williams, Stein, Hemingway, Faulkner, Frost, Welty, Stevens, and Miller. [78L]

**ENG361H5 American Fiction Since 1960**

At least six works by at least four contemporary American novelists, such as Bellow, Doctorow, Hawkes, Mailer, Nabokov, Percy, Pynchon, Updike, Vonnegut. [39L]

*Exclusion:* ENG218H

**ENG366Y5 Theory and Criticism of Literature**

Major issues and movements in the theory of literature and literary criticism, with emphasis on the Twentieth Century. Among the movements to be studied are varieties of formal, psychological, and moral criticism and theory, feminist criticism, structuralism and post-structuralism. Authors to be studied may include such figures as Richards, Leavis, Brooks, Frye, Trilling, Barthes, Bloom, Eagleton, Barbara Johnson. [78L]

**ENG367Y5 History of the English Language**

English from King Alfred's seventh-century Germanic to many-voiced present-day English, dominating popular culture, science, diplomacy, and business throughout the world. Specific texts show how sociopolitical history changes and varies this language. Topics include semantics, standardization, syntax, and vocabulary. [78L]

**ENG369Y5 Creative Writing**

Restricted to students who in the opinion of the Department show special aptitude. [52S] *Prerequisite:* Permission of instructor; portfolio must be submitted by June 1.

**ENG390Y5 Individual Studies**

A scholarly project chosen by the student and supervised by a member of staff. The form of the project and the manner of its execution will be determined in consultation with the supervisor. All project proposals must be submitted to the Associate Chair by June 1. Proposal forms are available in Room 227 (North Bldg.). [TBA]

*Exclusion:* ENG490Y

*Prerequisite:* Three courses in English

**ENG391Y5 Individual Studies (Creative)**

A project in creative writing chosen by the student and supervised by a member of the staff. The form of the project and the manner of its execution will be determined in consultation with the supervisor. All project proposals must be submitted to the Associate Chair by June 1. Proposal forms are available in Room 227 (North Bldg.). [TBA]

*Prerequisite:* Three courses in English, including ENG369Y

**Note:**

With the exception of ENG490Y, 400 level courses are open to students who have obtained standing in at least 9.0 credits, including at least 3.0 ENG credits. Students should consult the English Department brochure for details.

**ENG405H5/406H5/407H5/408H5 Studies in an Individual Writer, Pre-1800****[26S]****ENG420H5/421H5/422H5/423H5 Studies in an Individual Writer, Post-1800****[26S]****ENG455H5/456H5/457H5 Studies in Literature, Pre-1800****[26S]****ENG458H5/459H5 Studies in Literature, Post-1800****[26S]**

### **ENG490Y5 Senior Essay**

A scholarly project devised by the student and supervised by a member of the staff. The course is open to students enrolled in the English Specialist program or in Combined Specialist programs where it is an option. Proposal forms are available from the Department, and proposals must be submitted by June 1.

*Exclusion:* ENG390Y

*Prerequisite:* 14.0 credits with at least 4.0 credits in English; an overall B average in all English courses previously taken.

## Environment

### *Program Advisors:*

Environmental Analysis and Monitoring (B.Sc.)

(Specialist or Major)

Dr. U.J. Krull (Chemistry) (905) 828-5437 [ukrull@utm.utoronto.ca](mailto:ukrull@utm.utoronto.ca)

Dr. B. Murck (Environment) (905) 828-5426 [bmurck@utm.utoronto.ca](mailto:bmurck@utm.utoronto.ca)

Environmental Science (B.Sc.)

(Specialist or Major)

TBA (Biology) (905) 828-5366

Dr. S. Munro (Geography) (905) 828-3929 [smunro@eratos.erin.utoronto.ca](mailto:smunro@eratos.erin.utoronto.ca)

Dr. B. Murck (Environment) (905) 828-5426 [bmurck@utm.utoronto.ca](mailto:bmurck@utm.utoronto.ca)

Environmental Management (B.A.)

(Specialist or Major)

Dr. A. Wensley (Management) (905) 828-5318 [wensley@mgmt.utoronto.ca](mailto:wensley@mgmt.utoronto.ca)

Dr. B. Murck (Environment) (905) 828-5426 [bmurck@utm.utoronto.ca](mailto:bmurck@utm.utoronto.ca)

Environment and Human Society (B.A.)

(Major)

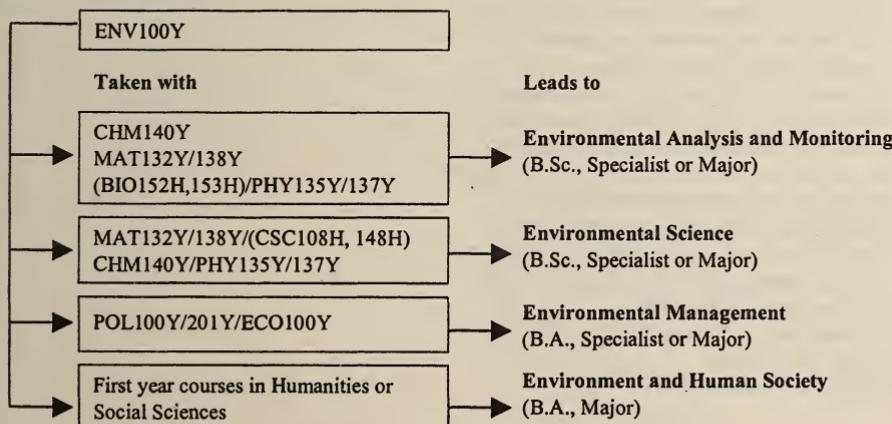
Dr. H. Friedmann (Sociology) (905) 828-3948 [friedman@chass.utoronto.ca](mailto:friedman@chass.utoronto.ca)

Dr. L. MacDowell (History) (905) 828-5284 [lmacdowe@utm.utoronto.ca](mailto:lmacdowe@utm.utoronto.ca)

Dr. B. Murck (Environment) (905) 828-5426 [bmurck@utm.utoronto.ca](mailto:bmurck@utm.utoronto.ca)

**Environment** at UTM comprises four program areas: Environmental Analysis and Monitoring (B.Sc.), Environmental Science (B.Sc.), Environmental Management (B.A.), and Environment and Human Society (B.A.). What distinguishes these programs of study, and specifically what distinguishes courses with the "ENV" designation, is that: (1) they are interdisciplinary. This means that they cover material from more than one subject area, they have input from faculty members in a range of disciplines, and they emphasize cross-disciplinary cooperation and learning. (2) They have as their central focus the natural biophysical environment, and how human activities influence and are influenced by our environment. (3) All of

the programs begin with ENV100Y, The Environment. This course may be taken by any student as an elective course or to satisfy a Science distribution requirement, but it must be taken if you wish to enter one of the programs in Environment. (4) All of the Specialist programs in Environment end with ENV400Y, a practical internship course. For further information, contact one of the Program Advisors, or turn to the Programs section of the Calendar. You can also visit our web site for more information about Environment programs and courses, graduate study and career options. From the UTM web site ([www.utm.utoronto.ca](http://www.utm.utoronto.ca)) click on "Academics" and then on "Environment".



## ENV100Y5 The Environment

This introductory environmental science course examines large-scale features of the Earth, natural hazards, the Earth's climate and weather systems, energy and mineral resources, human population growth, extinction and biodiversity, environmental toxins, vanishing soils and expanding deserts, forests, urban environmental management, and food resources. Interdisciplinary interaction among Science, Social Science, and Humanities is a major theme. [78L]

## ENV299Y5 Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 98 for details.

## ENV317H5 Changing Ontario Environments

This course provides a survey of Ontario's major ecosystems with emphasis on prehistoric and historic changes. Modern environments will be placed in the context of past climatic and human influences. This course will require numerous field trips to local sites, and two overnight trips. A small charge will be made to partially cover the cost of the field trips. Students must be willing to carpool. [13L, 52P]

*Prerequisite:* BIO205H

*Recommended Preparation:* ENV100Y, BIO330H

Offered in alternate years.

## ENV377H5 Global Environmental Change

This course focuses upon the physical aspects of environmental change: disappearing snow and ice, rising sea levels, desertification and dwindling groundwater reserves, to name a few. These changes to the map of our planet's surface are surveyed in the context of changes in global temperature and human population over time. This course involves practical sessions in which some quantitative aspects of theory are developed. [13L, 52P]

*Prerequisite:* 1.0 credit from GGR214H, 217Y, 217H, 227H

Offered in alternate years.

## ENV400Y5 Environmental Internship

Through a part-time, unpaid work placement, students apply the environmental expertise gained through previous course work. Placements are made at local conservation authorities, municipal planning departments, environmental consulting companies, corporations, federal agencies, and other organizations. You must see the course coordinator, Dr. Murck, before May 15 to apply for the course. A written report and presentation are required. These, along with the employer's assessment, provide the main part of the course mark. Specialists in an Environment Program will be given priority for admission; if space is available, other students may be admitted. It is difficult to place students with CGPA of less than 2.5. If you are in this position and this is a required course for your program, please see the Program Advisor for an alternative course placement.

*Prerequisite:* 4th year standing, P.I.

## ENV490H5/491H5 Special Topics in Environmental Studies

These courses highlight various topics of special interest in environmental studies. The specific focus and format of the courses will vary, depending on the chosen topic. In 2002/2003, the topic of study was Environmental Law. The courses will not be offered every year. Please check with the Director of Environmental Programs (B. Murck, 905-828-5426) for further information. [26L]

*Prerequisite:* 4<sup>th</sup> year standing, ENV100Y, P.I.

**ENV497H5 Environmental Research****Project**

This independent project course is designed to give students experience in the definition and execution of a one-term research study on an environmental topic, under the guidance of a member of the Faculty.

Students who wish to pursue this option with a specific faculty member or who have an idea for a research project should approach the faculty member early – before the start of the academic term – to negotiate the terms of the project. [13P]

*Prerequisite:* P.I., Completion of 3<sup>rd</sup> year requirements for a Major or Specialist program in the Environment.

**ENV498Y5 Environmental Research****Project**

This independent project course is designed to give students experience in the definition and execution of a major research study on an environmental topic, under the guidance of a member of the Faculty. Students who wish to pursue this option with a specific faculty member or who have an idea for a research project should approach the faculty member early – before the start of the academic term – to negotiate the terms of the project. [26P]

*Prerequisite:* P.I., Completion of 3<sup>rd</sup> year requirements for a Major or Specialist program in the Environment.

**Erindale Courses****Faculty Advisor:**

Humanities

(905) 828-5218

Under this heading are placed certain courses that, because of their interdisciplinary nature, are not part of the curriculum of a single academic department. Currently, courses in Canadian Studies, Cinema Studies, and Women's/Gender Studies are listed here.

**ERI100H5 Liberal Arts and the Arts of Language**

The traditional disciplines of grammar, logic and rhetoric are presented here as principles of language, of correct reasoning, and of effective discourse. This course helps students improve their foundation for any future work and study that requires attention to words, critical reading and reflective use of language. [26L, 13T]

*Exclusion:* SMC100H(G)

**ERI200Y5 Introduction to Women's Gender Studies**

Interdisciplinary study of gender issues. Different approaches, perspectives, and a variety of roles of men and women in contemporary society. Feminist theory.

[78L]

*Exclusion:* NEW160Y

*Recommended Preparation:* 4.0 credits

**ERI201H5 Introduction to Film Studies I**

An introduction to film analysis, history, and theory based on representative films from the silent era through the first half of the twentieth century. [13L, 26S, 13T]

*Exclusion:* ERI112Y; INI112Y; NEW112Y; VIC112Y

**ERI202H5 Introduction to Film Studies II**

An introduction to the major developments in the history and study of film from the middle of the twentieth century to the present. A continuation of ERI201H.

[13L, 26S, 13T]

*Exclusion:* ERI112Y; INI112Y; NEW112Y; VIC112Y

*Prerequisite:* ERI201H

## **ERI203H5(1) Introduction to Scholarly Research**

An introduction to scholarly approaches to research including theoretical frameworks for the organization of information in print and digital resources, critical strategies for acquiring, evaluating and communicating information, and the ethical and legal obligations of using information in scholarly contexts. [26L, 13T]

## **ERI300Y5 Feminisms and Related Liberatory Movements**

This course will examine the history and development of feminist thought within the European and North American contexts. We will offer a critique of the rise of first, second, and third wave feminist movements, paying attention to the intersections between feminist thought and other liberatory movements that address race, class, sexual orientation, and able-bodiedness. [78L]

*Exclusion:* NEW360Y

*Recommended Preparation:* ERI200Y

## **ERI390Y5 Independent Studies**

A reading and research project, chosen by the student and supervised by a faculty member, designed to integrate work in an Approved Area of Study. The project will culminate in the writing of a substantial essay. The supervisor will be chosen in consultation with the Program Coordinator. Open only to students enrolled in an Approved Area of Study. [TBA]

*Prerequisite:* 10.0 or more credits and permission of the Program Coordinator.

## **ERI401Y5 Senior Essay**

A major independent research project chosen by the student and supervised by a faculty member. All projects must be approved by the Committee on Canadian Studies by the end of classes in the previous year.

Application forms are available from the Program Coordinator. [TBA]

*Prerequisite:* Open only to students with at least 15.0 credits and the permission of the Program Coordinator.

## **ERI402Y5 Selected Topics in Canadian Studies**

A seminar course considering varied perspectives on Canadian themes or periods as presented by several disciplines. The topics to be studied will be decided in accordance with the special interests of the students involved. [TBA]

*Prerequisite:* Permission of the Program Coordinator.

## **ERI410H5 Independent Project in Women's/Gender Studies**

An opportunity to carry out an extended research project under the supervision of a faculty member. A proposal must be presented to the faculty member and consent obtained before the end of the July registration period.

*Exclusion:* ERI411Y

*Prerequisite:* ERI200Y, 2.0 credits from list of electives for years II, III, and IV of program; and P.I.

## **ERI411Y5 Independent Project in Women's/Gender Studies**

An opportunity to carry out an extended research project under the supervision of a faculty member. A proposal must be presented to the faculty member and consent obtained before the end of the July registration period.

*Exclusion:* ERI410H

*Prerequisite:* ERI200Y, 2.0 credits from list of electives for years II, III, and IV of program, and P.I.

**ERI420H5 Interdisciplinary Humanities Seminar**

The perspectives and methods of a wide range of Humanities disciplines will be applied to the study of one particular topic in depth. The course will be team taught and the topic for study will vary from year to year. Possible topics include: humour; technology; time and temporality; value/diversity; sense and sensibility; persons/personhood. NOTE: The topic for each academic year will be listed in the handbooks of all Humanities disciplines, which can be obtained from the Academic Secretaries in Room 227, North Bldg. or by telephoning the Assistant to the Associate Dean (905-828-5218). [26S]

*Prerequisite:* 14.0 credits and a declared major/specialist program/P.I.

**European Studies***Faculty Coordinator:*

TBA

*Departmental Secretary:*

Maria da Mota

Room 227, North Bldg.

(905) 828-3747

mdamota@utm.utoronto.ca

**EUR200Y5 Europe: Nation-State to Supranational Union**

An analysis of the development of European political regimes since 1789. This course identifies the decisive forces and factors affecting the operation of constitutions and institutions within the countries which came to form the European Union: nationalism, multinationalism, internationalism and supranationalism. [52L, 26T]

*Exclusion:* HIS241H, 242H

For Distribution Requirement purposes this is a Humanities or a Social Science course.

**EUR201Y5 Germany in 20<sup>th</sup> Century Europe**

Emergence of Second Reich, WWI, abdication of the Kaiser, Weimar Republic, rise of Fascism, Third Reich, WWII, Occupation Period, Two Germanies, the Wall, European Union, reunification.

**Taught in Berlin only.** [TBA]

*Exclusion:* TBA

*Recommended Preparation:* 100 level HIS/POL/GER course

**Offered in the Summer Session only.**

**EUR301Y5 Berlin Since 1945**

Examines the history, politics and culture of Occupied, West, East, and post-Wall Berlin. Will cover final defeat of 3<sup>rd</sup> Reich, Potsdam conference, Occupation Period, Berlin Airlift, Two Germanies, the Wall, Reunification, return of the capital to Berlin.

**Taught in Berlin only.** [TBA]

*Exclusion:* TBA

*Recommended Preparation:* 100 level HIS/POL/GER course

**Offered in the Summer Session only.**

## Fine Art History (FAH)

### Professors Emeriti:

L.E. Eleen, B.A., M.A., Ph.D.  
T. Martone, B.A., M.A., M.A., Ph.D.

### Professors:

J. Caskey, A.B., M.A., M.Phil., Ph.D.  
L. Kaplan, B.A., M.A., Ph.D.  
E. Levy, B.A., M.A., M.F.A., Ph.D.  
B. Welsh, B.A., M.Phil., Ph.D.

### Director of the Blackwood Gallery:

B. Fischer, B.A., M.A.

### Discipline Representative and Faculty

Advisor: Professor B. Welsh  
Room 122, North Bldg.  
(905) 828-3758

### Program Coordinator:

Professor John Armstrong  
Sheridan College  
Trafalgar Rd. Campus, Rm. A201  
(905) 845-9430, Ext. 2580

### Departmental Secretary:

N. Dotto  
Room 227, North Bldg.  
(905) 828-3727

Since works of architecture, sculpture, painting and other arts eloquently testify to the values and priorities of the societies that created them, art history provides a key to understanding human cultures in general. The historical processes which created a demand for works of art, helped shape their form and imagery, and instilled them with meaning or significance, provide the basic subject of art history. Students of art history consider both grand and modest works of art, from complex narratives of fresco cycles painted by renowned artists to humble ceramic dishes.

UTM's unique and varied programs in art history teach multiple approaches to understanding art. The Art History programs (Specialist, Major, Minor) balance traditional methods of analysis and interpretation with newer approaches rooted in critical theory. The Art & Art History programs (Specialist, Major), offered in conjunction with Sheridan, combine the

study of art history at UTM with studio at Sheridan (see FAS entries below).

Specialization in these programs may lead to curatorial work in galleries, museums, or corporations; careers in illustration, advertising, web design, film, and graphic design; journalism; teaching at the high school or university level; independent artistic activities; or simply to deeper engagement with, and enjoyment of, art.

Students registering in their first year in Art History or Art & Art History (joint program with Sheridan) are advised to contact the Discipline Representative and Studio Advisor during the registration period for guidance. CCIT students considering double-majoring in an art program should also meet the FAH faculty and consult with them about their studies.

**Most courses offered in alternate years.**  
Consult with the Departmental Secretary in Room 227, North Bldg., or see Fine Art web site for current offerings.

**Most 300 and 400 level Art History courses must be balloted.** Balloting for Fine Art History courses normally begins in March. Ballot forms are available from the Fine Art Dept., Room 227, North Bldg., (905) 828-3725.

### FAH105H5 Introduction to Art History

An overview of western art from the ancient world through the 20<sup>th</sup> century, as well as an introduction to the discipline of art history and its methodologies. Emphasis on representative monuments and key approaches to interpretation. [26L, 13T]  
*Exclusion: FAH100Y(G)*

**FAH201H5 Introduction to Visual Culture**  
Introduces the ways in which we use and understand images across the realms of art, advertising, mass media, and science, with examples drawn from painting, photography, film, television, and new media. Presents a diverse range of recent approaches to visual analysis and key theories of visual culture.

[26L, 13T]

*Exclusion:* CCT201H

This is the same course as CCT201H.

Students in Art and Art History and Art History programs should enrol in the FAH designated course.

**FAH203H5 Greek Art and Architecture**

The art and architecture of the ancient Greek world are surveyed from their origins in the 8<sup>th</sup> century B.C. city states through the period of Macedonian expansion and imposition of unity under Philip and Alexander. Stress is placed on the major arts (sculpture, painting, and architecture), but reference is also made to luxury metalwork, gems, and the decorative arts. Various genres are introduced. [26L, 13T]

*Exclusion:* FAH101Y*Recommended Preparation:* FAH105H**FAH204H5 Roman Art and Architecture**

Surveys the visual arts of the Mediterranean, ca. 300 B.C. to ca. 300 A.D., moving from early Republican Rome and Empire down to the age of Constantine. The course observes the inheritance of Hellenistic forms of art and patronage by Rome, and the formation of Roman visual culture. Emphasis is on the figural arts, especially sculpture and painting, and on the basic vocabulary of monumental architecture and design. [26L, 13T]

*Exclusion:* FAH101Y*Recommended Preparation:* FAH105H, 203H**FAH256H5 Ancient Rome**

Development of the city of Rome, from early times to the Late Empire. Buildings and monuments and their place in the life of the ancient city. Readings in topography, art and architecture, and history. [26L]

**FAH258H5 Pompeii, Herculaneum and Ostia**

The public and domestic monuments of three ancient Roman communities, illustrating the daily life of the later Republic and the Empire, outside the capital city itself. [26L]

**FAH267H5 Art of the Medieval Mediterranean**

Examines the art and architecture of the Mediterranean basin from ca. 200 to 1400 AD. Begins with the rise of Christianity and the challenges it posed to the Roman Empire, and then examines the Byzantine Empire and the lands of Islam. In all three contexts, art and architecture played prominent roles in articulating the spiritual aspirations and political goals of the new religions and empires that embraced them. All three also bear markings of their common Roman cultural inheritance. Considers art in a variety of media, from architecture to ceramics, along with medieval documents and modern art historical texts. [26L, 13T]

*Exclusion:* FAH102Y, 261H(G), 262H(G), 263H(G)*Recommended Preparation:* FAH105H**FAH271H5 Art of the Medieval North**

Examines the art and architecture of Northern Europe from ca. 400 to 1400 AD. Establishes the importance of Celtic and "Barbarian" visual culture as distinct from Roman and Mediterranean, and examines various moments when these cultures clashed or were aligned. Assesses early medieval, Carolingian, Ottonian, Romanesque, and Gothic art, including architecture, sculpture, metalwork, and manuscripts, along with medieval documents and modern art historical texts. [26L, 13T]

*Exclusion:* FAH102Y, 261H(G), 262H(G), 263H(G)*Recommended Preparation:* FAH105H, 267H

## FAH274H5 Renaissance Art & Architecture

A selective survey of the major art centres, types of artistic production, personalities, and trends in Italy and the North, from the early fifteenth century to the mid-sixteenth. The creation and diffusion of art are addressed through an understanding of historical techniques (media), cultural determinants such as patronage, and significant works of art. [26L, 13T]

*Exclusion:* FAH200Y

*Recommended Preparation:* FAH105H

## FAH279H5 Baroque Art and Architecture

An introduction to art and society in Europe, ca. 1600 to ca. 1800 AD. Tensions between the Catholic Church and Protestantism, the rise of powerful, competing courts, the growth of increasingly complex urban centres, and the entry of the "wider public" into the art market all create new roles for representation in Europe. Developments in painting, prints, sculpture, architecture, urban planning and festivals considered. [26L, 13T]

*Exclusion:* FAH200Y

*Recommended Preparation:* FAH105H, 274H

## FAH287H5 European Art of the Nineteenth Century

Surveys major artistic developments in painting and sculpture from the 1780s through the 1880s: Neo-classicism, Romanticism, Barbizon School, juste-milieu, academic classicism, realism, the Pre-Raphaelite brotherhood, Impressionism, and Neo-impressionism. [26L, 13T]

*Exclusion:* FAH210Y, 208H(G), 282H(G), 283H(G)

*Recommended Preparation:* FAH105H

## FAH288H5 Art of the Earlier 20<sup>th</sup> Century

General survey of principal modernist art movements from the end of the 19<sup>th</sup> century through 1945. Consideration given to the theories as well as practice of artists, and to the relationship of artists to art movements. [26L, 13T]

*Exclusion:* FAH210Y, 209H(G), 283H(G)

*Recommended Preparation:* FAH105H, 287H

## FAH289H5 Art Since 1945

Examines many divergent international art movements and controversies in painting, sculpture, video, installation art, performance, and other new forms, from 1945 to the present.

*Recommended Preparation:* FAH105H, 201H, 288H

## FAH299Y5 Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 98 for details.

## VCC302H5 Visual Culture through the Post-Colonial Lens

(See Visual Culture and Communication)

## VCC306H5 Gender and Visual Representation

(See Visual Culture and Communication)

## VCC310H5 Mass Communication and Popular Culture

(See Visual Culture and Communication)

## FAH312H5 Painting and Sculpture in the United States

These arts in America since the late 17th century: their relationship to European traditions, the growth of distinctive national styles, and international interaction. [26S] Balloting required.

*Prerequisite:* FAH200Y/210Y/287H/288H

## FAH315H5 Realism

An examination of this mid-nineteenth century movement in French painting and sculpture with particular emphasis on Courbet, Millet, the Barbizon School, Daumier and Manet. [26S]

Balloting required.

*Exclusion:* FAH404H

*Prerequisite:* FAH210Y/287H

**FAH319H5 The Expressionist Tradition in Twentieth Century Painting and Sculpture**  
A continuation of FAH318H, the course concentrates upon such twentieth century masters as Matisse, Kirchner, Kandinsky, Nolde, Arp, Miro and Pollock, Borduas and Riopelle. [26S]

Balloting required.

*Prerequisite:* FAH210Y/288H**FAH322H5 Romanesque Sculpture**

A study of architectural sculpture in 11th and 12th-century France and neighbouring countries: origins, sources of form and style, social, religious and functional contexts of selected monuments, also historiography. [26S]

Balloting required.

*Prerequisite:* FAH102Y/267H/271H**VCC329H5 Visual Culture and the Construction of Identity**

(See Visual Culture and Communication)

**FAH332H5 Studies in Baroque Painting**

Thematically organized treatment of major figures (Caravaggio, Carracci, Poussin) in the context of art theory and viewer response. [26S]

Balloting required.

*Prerequisite:* FAH105H/200Y/279H**FAH337H5 Court Art and Patronage in the Middle Ages**

Art and architecture of royal and imperial families from ca. 800 to 1400 in western Europe, including Norman, Capetian, Plantagenet and Hohenstaufen dynasties. Topics include role of courts in development and diffusion of new styles, and monuments as expressions of piety, chivalry, and political propaganda. [26S]

May be taken for credit for the Specialist/Major programs in Architecture (St. George).

Balloting required.

*Exclusion:* FAH319H*Prerequisite:* FAH102Y/271H/267H**FAH343H5 Pilgrimage**

Experience of pilgrimage from an interdisciplinary perspective, with focus on major Christian and Islamic shrines in the Middle Ages. Monuments associated with sites such as Santiago, Jerusalem, and Mecca, as well as objects collected by pilgrims. [26S]

May be taken for credit for the Specialist/Major programs in Religion (UTM), Christianity &amp; Culture (St. George) and Architecture (St. George). Balloting required.

*Prerequisite:* FAH102Y/267H**FAH351H5 Gothic Architecture**

(Formerly FAH268H)

Study of origins, architecture and decoration of the Gothic Cathedral in the Ile-de-France, function and symbolism, intellectual and social contexts, and initial diffusion of the style to other countries. Considers post-medieval Gothic as well. [26L]

Balloting required.

*Exclusion:* FAH265H, 268H*Prerequisite:* FAH271H**FAH353H5 Rome in the Age of Bernini**

Architecture, urbanism and multi-media ensembles of Baroque Rome under Urban VIII, Alexander VII and Innocent X. With particular emphasis on the work of Borromini and Bernini in palace architecture, churches, piazzas, fountains and at the Vatican. [26S]

May be taken for credit for the Specialist/Major programs in Religion (UTM), Christianity &amp; Culture (St. George), and Architecture (St. George). Balloting required.

*Exclusion:* FAH338H*Prerequisite:* FAH105H/200Y/279H

**FAH378H5 Studies in Impressionism**  
The origin and development of this movement in painting, graphics and sculpture in France and in Europe from 1860 to 1886 with special emphasis on Monet, Renoir, Degas, Pissarro, Sisley, Cassat and Morisot. The course will concentrate on the evaluation of the style in relation to the intellectual, social and political context of the period. [26S]

Balloting required.

*Prerequisite:* FAH210Y/287H

### **FAH388H5 Theory in Art History**

Investigates the role of theory in art and art history of the modern period. Texts to be studied include works by the principal theoreticians and critics from the late 18<sup>th</sup> century. [26S]

Balloting required.

*Prerequisite:* At least 2.0 credits in FAH/CCT.

### **FAH391H5 History of Photography**

Examines the history of photography in Euro-American visual culture and explores how this medium of mass communication has transformed our perceptions and conceptions of art, society, and culture over the past two centuries. Reviews key imagemakers and areas of production concluding with impact of digital imaging. [26L]

*Prerequisite:* CCT201H/FAH201H

### **VCC400H5 Advanced Project**

(See Visual Culture and Communication)

### **VCC403H5 Contemporary Asian Visual Culture**

(See Visual Culture and Communication)

### **VCC405H5 Individual Project**

(See Visual Culture and Communication)

### **VCC411H5 Real Space to Cyberspace**

(See Visual Culture and Communication)

### **VCC412H5 The Corporate Eye**

(See Visual Culture and Communication)

### **VCC415H5 Theory and Criticism of**

**Photography and New Media**

(See Visual Culture and Communication)

### **VCC425H5 Art and Media Culture**

(See Visual Culture and Communication)

### **FAH435H5 Women and Art in the Middle Ages**

An interdisciplinary study, including feminist analysis, of the roles of women in the Middle Ages, their representation in medieval art, and their impact on varying aspects of the art as subject, object, patron or artist. [26S]

Balloting required.

*Prerequisite:* FAH102Y/267H/271H and at least 0.5 FAH at 300/400 level.

### **FAH441H5 Reformation and Counter-Reformation Art**

Reformation tracts against images and iconoclastic outbreaks in Northern Europe. Response of Counter-Reform with new iconographies, historical accuracy in narrative, Early Christian revival in architecture, image-based devotional practices. [26S]

**May be taken for credit for the Specialist/Major programs in Religion (UTM) and Christianity & Culture (St. George).**

Balloting required.

*Prerequisite:* FAH200Y/274H/279H, 0.5 300/400 level course in Renaissance or Baroque Art or P.I.

### **FAH447H5 Cubism and Related Movements**

An investigation of the birth and development of Cubism, Futurism and Orphism in Europe, America and Canada. [26S]

Balloting required.

*Exclusion:* FAH284H

*Prerequisite:* FAH210Y/288H, 0.5 300/400 level course in FAH

**FAH449H5 Renaissance Narrative Painting**

A study of Italian Renaissance istoria or narrative painting in light of Alberti's art theory, devotional modes (Fra Angelico), the eyewitness account (Carpaccio), narrative cycles (Piero della Francesca), etc. Course will examine wide range of 15th century Italian painting and will include readings in contemporary narrative theory. [26S]

Ballotting required.

*Exclusion:* FAH357Y, 358H

*Prerequisite:* FAH200Y/274H, 1.0 course in FAH at the 300/400 level or P.I.

*Recommended Preparation:* FAH102Y/267H/271H

**FAH451H5 Curatorial Practice**

This course, taught by a professional curator, will deal with the stages of exhibition preparation, placing heaviest emphasis on conceptualization, on the premise that curatorial practice is an intellectual endeavour that realizes its ideas in visual form. Students will visit exhibitions and analyze them critically, and research and produce their own exhibitions (hypothetical or actual) with attendant textual documentation. [26S]

**FAH451H may be counted toward either the FAH or the FAS requirements in the Art and Art History program.**

*Prerequisite:* For Art and Art History majors/specialists: 4.0 FAS courses and 2.0 FAH courses. For Art History majors/specialists: 1.0 course in FAH at the 300/400 level.

*Recommended Preparation:* Intended for advanced students with high standing in the Art History or Art and Art History Program.

**FAH452H5 Studies in Post-Impressionism**

An investigation of this movement in French painting and graphics, 1886-1896, with special emphasis on Van Gogh, Cezanne, Gauguin, Seurat, Toulouse-Lautrec, Redon, Bonnard, Vuillard and Denis. An examination of its theories and practices within the late 19th century artistic and social milieu. [26S]

Balлотting required.

*Exclusion:* FAH379H

*Prerequisite:* FAH210Y/287H, 288H/plus 1.0 course in FAH at the 300/400 level.

**FAH453H5 Vincent Van Gogh and Modern Art**

The role of Van Gogh in relation to the Romantic, Realist, Impressionist, Neo-Impressionist and Symbolist movement in nineteenth century art as well as the artist's legacy to modern art in early twentieth-century Europe. [26S]

Balлотting required.

*Exclusion:* FAH318H

*Prerequisite:* FAH210Y/287H and 288H/plus 1.0 FAH at the 300/400 level.

**FAH454H5 Francis & Clare: Art, Affluence, and Asceticism in the Late Middle Ages**

Examines the arts associated with the Franciscans and Clares in the 13<sup>th</sup> and 14<sup>th</sup> centuries. Addresses debates fuelled by the Franciscans regarding the poverty of Christ and its implications for the construction and decoration of religious spaces; monastic architecture; the spread of the cult of Francis; texts by and about Francis and Clare. [26S]

**May be taken for credit for the Specialist/Major programs in Religion (UTM), Religion (St. George) and Christianity and Culture (St. George).**

*Prerequisite:* FAH102Y/267H/271H, 0.5 credit in FAH at the 300 level

**Students must have prior permission of the instructor for the following courses:**

**FAH480H5/481H5 Studies in Ancient Art**

Students who have demonstrated unusual ability in earlier years will be encouraged to undertake, under the supervision of one or more staff members, special research projects culminating in a major research paper. Not more than two half-courses in Independent Studies may be taken in a single year. Students must have written consent of their Faculty supervisor(s) and the Undergraduate Secretary before registering.

*Prerequisite:* Six FAH courses including a 300+ level half course and P.I.

**FAH482H5/483H5 Studies in Medieval Art**

The same course description and prerequisites as FAH480H/481H.

**FAH484H5/485H5 Studies in Renaissance Art**

The same course description and prerequisites as FAH480H/481H.

**FAH486H5/487H5 Studies in Baroque Art**

The same course description and prerequisites as FAH480H/481H.

**FAH488H5/489H5 Studies in Modern Art**

The same course description and prerequisites as FAH480H/481H.

**Fine Art Studio (FAS)***Professor Emeritus:*

J. Crossan, A.O.C.A.

*Studio Faculty:*

L. Andison, Dip. [Inter. Illustr.], B.F.A.,  
J. Armstrong, B.F.A., M.A.  
C. Arnoldin, B.F.A., M.F.A.  
T. Bolliger, B.A., M.S.A.  
M. Clark, B.F.A.  
W. Coburn, A.O.C.A., M.F.A.  
B. Fischer, B.A., M.A.  
S. Glass, B.Ed., B.Sc.  
R. Goldchain, B.A.A., B.F.A., M.F.A.  
S. Gregson, B.F.A., M.F.A.  
L. Hague, B.F.A.  
P. Kipps, B.A.  
C. LaLiberté, B.F.A., M.F.A., Dip. Computer Graphics  
L. Neighbour, A.O.C.A.  
L. Nicholson, B.A.  
L. Noguchi, A.O.C.A., M.F.A.  
R. Phillips, B.A., B.Ed.,  
S. Rechico, B.Ed.  
R. Sewell, B.A.  
A. Smith, B.A., M.A., M.F.A., Ph.D.  
J. Wilson, A.O.C.A., B.Sc.  
A. Wright, B.A., M.F.A.

*Program Coordinator:*

Professor John Armstrong

Sheridan College

Trafalgar Rd. Campus, Rm. A201  
(905) 845-9430, Ext. 2580

All FAS courses are offered on the Oakville Campus, Sheridan College. As studio space is limited in the 100 and 200 level FAS courses, priority will be given during first registration to students enrolled in the Art & Art History Major/Specialist, Art History Major/Specialist, CCIT Major , VCC Specialist, and to newly admitted students who indicated the Art and Art History code on their application.

All 300 and 400 level Fine Art Studio courses will be balloted. Balloting is the process by which students interested in taking Fine Art Studio courses request permission to enrol. Ballot forms and detailed instructions are available March 1 from the Fine Art Department

Room 227, North Bldg.  
University of Toronto at Mississauga  
(905) 828-3725

or from the

Faculty of the Arts  
Room A100  
Sheridan College  
1430 Trafalgar Road  
Oakville, Ontario L6H 2L1  
(905) 845-9430, Ext. 2571.

**Note:**

**Students enrolling in any FAS course will be required to pay a fee of \$45 per half credit / \$90 per full credit. These charges will automatically be added to your University of Toronto student account receivable.**

**FAS143H5 Drawing I**

An introduction to drawing principles, media, and processes with the emphasis on understanding the way in which drawing methods bring variety and clarity to image-making. Areas of study range from technical drawing to conceptual development—objects and environments serve as subject matter. [78P]

*Exclusion:* VIS130H(G), 211H(G)

**FAS145H5 Painting I**

An exploration of the techniques and subject matter of 20<sup>th</sup>-century painting in relation to contemporary art practices. Students work with both observational and conceptual approaches through experimentation with painting's formal elements, traditional and non-traditional painting materials, montage, and abstraction. [78P]

*Exclusion:* FAS230Y(G); VIS201H(G), 301H(G)

**FAS146H5 Design I**

An applied investigation of design thinking, theories, techniques and tools, addressing broad range of design issues through a variety of approaches and media.

Assignments encompass all types of design (interior, graphic, industrial), varying from 1-hour to year-long projects. Introduces Mac software but most assignments can be done without a computer. [78P]

**FAS147H5 Photography I**

Emphasis on interaction of technique, perception, and communication in making and responding to photographic images. Covers necessary technical aspects of the medium and darkroom procedures. [78P]  
*Exclusion:* VIS217H(G), 218H(G)

**FAS232H5 Print Media I**

Course conducts a survey of contemporary printmaking practices. Projects in monoprint relief and intaglio examine essential characteristics of printmaking, and issues pertaining to contemporary art discourse. Through projects students develop technical skills and critical abilities necessary for art making. Each project combines research, presentations/discussions and critical thinking. [78P]

*Exclusion:* VIS203H(G), 303H(G)

**FAS234H5 Print Media II**

This course expands technical knowledge of relief and intaglio and introduces silkscreen printing. Students also work with preliminary video and digital imaging. Alternative methods of print and printed ephemera are developed. [78P]

*Exclusion:* VIS203H(G), 303H(G), 309H(G)

*Prerequisite or Corequisite:* FAS232H/P.I.

**FAS243H5 Drawing II**

This course uses drawing as a resource to develop work in a variety of materials and processes that may embrace both traditional practices and current technologies. Students are presented with issues to research and address through their work. [78P]

*Exclusion:* VIS205H(G), 211H(G), 305H(G)

*Prerequisite:* FAS143H/P.I.

## **FAS245H5 Painting II**

A continuation of FAS145H. Slide discussion/lectures present Canadian and international contemporary painting practices to contextualize assigned, 3-week projects. Students are introduced to in-depth group critiques, a range of painting media and techniques, and portfolio documentation. [78P]

*Exclusion:* FAS230Y(G), VIS201H(G), 301H(G)

*Prerequisite:* FAS145H/P.I.

## **FAS246H5 Design II**

A further applied investigation of design thinking, theories, techniques and tools, from conceptual to practical applications, using a variety of approaches and media. Building on FAS146, assignments address sound, interior, graphic and industrial design, varying from 1-hour to year-long projects. Both computer- and non-computer based projects. [78P]

*Prerequisite:* FAS146H/P.I.

## **FAS247H5 Photography II**

A continuation of FAS147H, this course further develops the use of the camera, light and light-sensitive materials for visual communication and personal expression. Investigations of historical and contemporary uses of the medium will emphasize both technical and aesthetic considerations. [78P]

*Exclusion:* VIS318H(G)

*Prerequisite:* FAS147H/P.I.

## **FAS248H5 Sculpture I**

This course introduces students to basic sculptural processes while challenging conventional models of sculptural construction. A series of challenging conceptual exercises provide opportunity for creative problem-solving and critical analysis. [78P]

*Exclusion:* VIS204H(G), 306H(G)

## **FAS330Y5 Experimentation in Past and Present Techniques**

A practical investigation of techniques in art that have both historical precedents and contemporary applications. Media covered may include some of the following: mosaic, wood carving, encaustic, three-crayon drawing, egg tempera, fresco. [156P]

*Prerequisite:* Any FAS200 level course or any FAH100 level course and P.I.

## **FAS332Y5 Experimentation in Digital Imaging and Dynamic Media**

Students will explore the creative possibilities that computer systems offer to the process of art making. Through projects in digital still and dynamic media, students learn the diverse set of new art-making tools offered by the computer, as well as the speed and immediacy inherent in this medium. [156P]

*Prerequisite:* FAS146H, and P.I.

## **FAS334Y5 Print Media III**

A continuation of FAS234H with an introduction to stone and plate lithography. Emphasis on the integration of digital and photo-based print media using Adobe Photoshop. Brief introduction to Adobe Premiere for sequencing video stills. Greater focus is placed upon individual development with attention to production, quality and technical expertise. [156P]

*Exclusion:* VIS309H(G)

*Prerequisite:* FAS234H/P.I.

## **FAS343Y5 Drawing III**

This course is a continuation of FAS243H, with further development of the knowledge and skills gained in Drawing II. Students approach drawing in its broadest sense through the development of research and production models that assist in analyzing contemporary practice in the visual arts. [156P]

*Exclusion:* VIS305H(G)

*Prerequisite:* FAS243H/P.I.

**FAS345Y5 Painting III**

A continuation of FAS245H. Students develop independent research habits to support self-directed projects in painting that are reviewed in a critique setting. Also included are demonstrations of painting media and gallery visits. Written statement of intentions and procedures, contemporary Canadian or international artist presentation, as well as portfolio documentation required. [156P]

*Exclusion:* FAS331Y(G), VIS305H(G)

*Prerequisite:* FAS245H/P.I.

**FAS346Y5 Design III**

A continuation of 246H. This course poses similar problems on an advanced level.

[156P]

*Prerequisite:* FAS246H/P.I.

**FAS347Y5 Photography III**

An advanced photography course integrating history, theory and production and designed to assist students to develop a critically informed photography practice. [156P]

*Exclusion:* VIS318H(G)

*Prerequisite:* FAS247H/P.I.

**FAS348Y5 Continuing Investigations in Sculpture**

Students explore contemporary concepts, images and materials in three-dimensional works inspired by natural forms and culturally specific sources. [156P]

*Exclusion:* VIS306H(G)

*Prerequisite:* FAS248H/P.I.

**FAS343Y5 Individual Investigations in Print Media**

A self-directed, supervised opportunity to define and develop a student's artistic vision in any or all print media. Print will be broadly defined and students may choose to consolidate and explore traditional print media or to work with computers and video to produce a short video using Adobe Premiere. Increased refinement and sophistication in conception and execution is expected. Students must present both written and oral proposals for term projects. [156P]

*Exclusion:* VIS311H(G), 401H(G),

402H(G), 403H(G), 404H(G)

*Prerequisite:* FAS334Y and P.I.

**FAS445Y5 Individual Investigations in Painting**

A continuation of FAS345Y. Students develop a cohesive body of work reflecting an understanding of contemporary art practices. Regular critiques are supplemented by gallery visits, and an introduction to professional practices and art criticism. Written statement of intentions and procedures, contemporary Canadian or international artist presentation, as well as portfolio documentation required. [156P]

*Exclusion:* VIS401H(G), 402H(G),

403H(G), 404H(G)

*Prerequisite:* FAS345Y and P.I.

**FAS447Y5 Individual Investigations in Photography**

Individual projects exploring themes or issues using photography are established and evaluated in the context of contemporary critical practice. [156P]

*Exclusion:* VIS401H(G), 402H(G),

403H(G), 404H(G)

*Prerequisite:* FAS347Y and P.I. .

**FAS448Y5 Individual Investigations in Sculpture**

Students formulate their own positions through written and oral proposals. A body of three-dimensional works reflecting issues associated with contemporary sculptural practice is produced. [156P]

*Exclusion:* VIS401H(G), 402H(G),

403H(G), 404H(G)

*Prerequisite:* FAS348Y and P.I.

*Students must have Departmental permission for the following courses:*

**FAS450Y5 Advanced Project**

An independent project chosen by the student and supervised by Faculty member(s). A written proposal must be submitted to and approved by the Department before registration. No student may take more than one Advanced Project credit in a single year. [156P]

*Exclusion:* VIS311H(G), 401H(G),

402H(G), 403H(G), 404H(G)

*Prerequisite or Corequisite:* 1.0 FAS 400 level course

## **FAS451H5 Advanced Project**

An independent project chosen by the student and supervised by Faculty member(s). A written proposal must be submitted to and approved by the Department before registration. No student may take more than one Advanced Project credit in a single year. [78P]

*Exclusion:* VIS311H(G), 401H(G), 402H(G), 403H(G), 404H(G)

*Prerequisite or Corequisite:* 1.0 FAS 400 level course

## **FAS452H5 Advanced Project**

An independent project chosen by the student and supervised by Faculty member(s). A written proposal must be submitted to and approved by the Department before registration. No student may take more than one Advanced Project credit in a single year. [78P]

*Exclusion:* VIS311H(G), 401H(G), 402H(G), 403H(G), 404H(G)

*Prerequisite or Corequisite:* 1.0 FAS 400 level course

## **FAS453H5 Art Education Practice**

This course will outline principles of educational theory and practice for teaching visual arts studio and art history, and explore teaching dynamics and learning, curriculum design, assessment and evaluation, and the history of art education. Students will have opportunities to observe and interact with practicing educators in a variety of educational settings. FAS454H may be counted toward the half-credit, 400 level "practice" course requirement in the Art and Art History Program. Balloted course intended for students with high standing in the Art and Art History or Art History Program. [26S, 13P]

*Prerequisite:* For Art and Art History majors/specialists: 4.0 FAS courses and 2.0 FAH courses.

For Art History majors/specialists: 1.0 course in FAH at the 300/400 level.

## **FAS454H5 Professional Practice**

This course will outline the professional and business requirements of establishing a career as a practicing visual artist. Topics covered include portfolio development, exhibition presentation and organization, public art competitions, photo documentation, writing grant proposals, marketing, and taxes and bookkeeping. Guest lectures will augment students' research of the career paths of a range of arts professionals. Balloted course intended for students with high standing in the Art and Art History or Art History Program.

FAS453H may be counted toward the half-credit, 400 level "practice" course requirement in the Art and Art History Program. [26S, 13P]

*Prerequisite:* For Art and Art History majors/specialists: 4.0 FAS courses and 2.0 FAH courses.

For Art History majors/specialists: 1.0 course in FAH at the 300/400 level.

## Forensic Science

### *Professor Emeritus:*

J. Melbye, B.A., M.A., Ph.D.,  
D.A.B.F.A.

### *Professors:*

A.J. Bonner, B.Sc., M.S., Ph.D.  
K.R. Blankstein, B.A., M.A., Ph.D.  
W.R. Cummins, B.Sc., Ph.D.  
D.L. Gibo, B.A., Ph.D.  
P.A. Horgen, B.A., M.Sc., Ph.D.  
U.J. Krull, B.Sc., M.Sc., Ph.D.  
D. O'Day, B.Sc., M.Sc., Ph.D.  
T. Rogers, B.A., M.A., Ph.D.  
A. Rosenbloom, B.Sc., M.Sc.  
B.J. Saville, B.Sc., M.Sc., Ph.D.  
J.T. Westwood, B.Sc., Ph.D.

### *Adjunct Professors:*

T.J. Cairns, M.D.  
D.A. Chiasson, B.Sc., M.D., F.R.C.P.C.  
P. Collins, B.A., M.C.A., M.D.,  
F.R.C.P. (C)  
K.W. Hindmarsh, BScPhm., M.Sc., Ph.D.,  
FCFS  
D.M. Lucas, M.Sc., D.Sc.  
J.M. Mayer, B.Sc., M.Sc., Ph.D.  
M.S. Pollanen, B.Sc., Ph.D.  
R.J. Prime, B.Sc., Ph.D.  
D. Wilkinson, Ph.D.  
J.G. Young, M.D.

### *Program Director and Faculty Advisor:*

Professor W.R. Cummins

### *Program Administrative Assistant:*

Teresa Cabral  
Room 227, North Bldg.  
(905) 828-3726  
tcabral@utm.utoronto.ca

Forensic Science is the study of physical evidence in a modern legal context. There are many subfields of Forensic Science including Forensic Anthropology, Forensic Biology, Forensic Chemistry, Forensic Entomology, Forensic Toxicology, etc. The single, unifying paradigm of Forensic Science is the search for the true meaning of evidence in both criminal investigations and courts of law. The program is designed to provide the student with a broad base of knowledge about different aspects of scientific applications; and, at the same time,

allow the student to emphasize one particular aspect in greater detail. We accomplish this goal through the requirement of a double major. The major in Forensic Science will provide the general background, and the second major will provide additional depth into one of the sub-fields.

Entry into the Forensic Science major is limited. Students are urged to read Program Information in this Calendar very carefully.

The selection of the second major is limited. While other majors must be approved by the Faculty Advisor, the following are approved:

**Anthropology** with emphasis on forensic anthropology

**Biology** with emphasis on forensic biology and molecular biology

**Chemistry** with emphasis on forensic chemistry

**Psychology** with emphasis on forensic psychology

Each of these majors has basic departmental requirements that must be fulfilled. In addition to these basic requirements, there are provisions for a number of options. The Forensic Science program provides recommended courses among these options to direct student preparation for a career in their chosen field of interest.

Increasingly, forensic scientists are being employed to investigate suspicious deaths, mass disasters such as airplane crashes and floods, and political atrocities such as those that have occurred in recent years in other places around the world. Most students with a B.Sc. may seek employment with various police agencies. Police agencies are looking for candidates who fulfill the basic requirements for police officers plus have special knowledge in forensic science. The program is also good preparation for advanced degrees in medicine, law, and laboratory science.

The following courses are the core courses for the Forensic Science Program. See Program for options, and see Departmental Course Descriptions for further details:

CHM140Y	The Study of Matter and Its Transformations
BIO206H	Introductory Cell and Molecular Biology
BIO207H	Introductory Genetics
BIO215H	Laboratory in Molecular Biology and Genetics
STA220H	Statistics
STA221H	Application of Statistics
FSC239Y	Forensic Science
PHL271H	Ethics and the Law
PHY135Y	General Physics
ANT334Y	Human Osteology
BIO338H	Forensic Entomology
FSC301H	Forensic Identification
FSC310H	DNA Evidence in Forensic Science
FSC401H	Forensic Pathology
FSC402H	Forensic Toxicology
FSC481Y	Mentorship in Forensic Science

## **ANT205H5 Introduction to Forensic Anthropology**

Introduction to the field of forensic anthropology. Outlines the areas in which forensic anthropologists may contribute to a death investigation and introduces basic concepts relating to the recovery and analysis of human remains. [26L, 13T]  
*Prerequisite:* ANT(101H, 102H)/100Y

## **FSC239Y5(1) Forensic Science**

Forensic science is the application of any scientific inquiry into criminal investigation. The results of such inquiry are ultimately for presentation in courts of law. Specialists in forensic science will lecture on a variety of topics that will include crime scene investigation, the role of the coroner, forensic pathology, forensic chemistry, forensic botany, forensic entomology, forensic anthropology, forensic dentistry, psychology and toxicology. Case studies will be reviewed, and the role of the expert witness will be examined. [52L]

## **FSC250H5 Introduction to Forensic Investigation**

This course offers a broad perspective on forensic investigation as a profession in a changing legal and technological environment in contrast to popular misconceptions about the profession. Topics include: limitations of knowledge and practice; knowledge and know how; the dangers of deference to authority; evidence vs. truth. Students will learn to think critically about science and the nature of evidence, the laws of evidence, and professional ethics. They will also examine the historical and philosophical contexts in which the profession is evolving within the principles of major case management. [26L]

*Prerequisite:* FSC239Y/P.I.

(First choice given to FSC Majors and Specialists)

## **FSC260H5 Forensic Investigation and the Courts**

The structure of argument and argumentation across disciplines will be examined. The process of adapting scientific argument to legal argument will be explored as will the techniques of presentation to self and dealing with media. Against a backdrop of Supreme Court decisions and regarding evidence and expert witness testimony, students will apply knowledge, skills, and values in structured legal environments. They will develop ability to communicate in adversarial legal setting, respond to legal questions, and express with precision the scope and limits of their expertise. [26L]

*Prerequisite:* FSC239Y/P.I.

(First choice given to FSC Majors and Specialists)

## FSC301H5 Forensic Identification

This course offers education and training in the practice of forensic identification. Content focuses mainly on the crime scene and those types of evidence commonly dealt with in an identification facility. Topics include: crime scene protocols; management and reconstruction; identification compared and contrasted to systematics; impression evidence (i.e. fingerprints, footwear, tire and tool marks) theory and practice; firearms-related evidence; requirements of society and the court. Activities will include a field trip to an identification bureau and participation in a practical crime scene exercise. [26L, 13T]

*Prerequisite:* FSC239Y; CHM140Y

(First choice given to FSC Majors and Specialists)

## ANT306H5 Forensic Archaeology

Introduction to the field of forensic archaeological field techniques and scene interpretation. A 2-week field school will be held on the UTM campus (Monday to Friday 9-4, last two weeks of August). Weekly 1 hour classes will be held during the fall term. In these classes, students will examine casts, maps, photos and other evidence collected in the field, for the purposes of scene reconstruction and presentation in court. [96P]

*Prerequisite:* ANT205H

*Limited Enrolment*

## FSC310H5 DNA Evidence in Forensic Science

Genetic markers including Short Tandem Repeats (STRs) and Single Nucleotide Polymorphisms (SNPs) and the technologies employed for characterizing them will be described in detail. Problems encountered in forensic casework will be discussed such as DNA degradation, PCR-contamination, mixed samples, limitations of genotyping technologies, etc. Other topics include DNA databases, quality control and laboratory validation issues, and admissibility in the courtroom. Several case studies will be employed. [26L, 13T]

*Prerequisite:* BIO206H; FSC239Y

(First choice given to FSC Majors and Specialists)

## BIO338H5 Forensic Entomology

A survey of the Class Insecta, emphasizing the functional morphology, physiology, behaviour and evolution of this highly successful group of animals. Laboratories focus on gaining proficiency in recognizing insect orders, families and genera. Students will carry out a field study of the changes in insect faunas that occur during decomposition of carrion and write a term paper based upon their observations. Two insect collections are required: a general collection that illustrates the diversity of insects found in a region and a collection of species of forensic importance that are attracted to carrion. [26L, 39P]

*Exclusion:* BIO334H

*Prerequisite:* BIO151Y/(152H, 153H)/P.I.

## PSY344H5 Forensic Psychology

An exploration of the role of psychology in forensic science (the application of scientific inquiry into criminal investigation). Topics, which will vary from year to year, could include the assessment of criminal responsibility, competency issues, psychiatric disorders associated with crime, criminal profiling, behavioural analysis of a crime scene, prediction of dangerousness, workplace and family violence, sexual assault/abuse/rape, recovered memories, detection of malingering and deception, deindividuation and bystander intervention, social psychology of the jury, use of psychological tests in legal cases, witness preparation/interrogation, and the psychologist as expert witness. [39L]

*Prerequisite:* PSY240H

## FSC401H5 Forensic Pathology

(Formerly: Topics in Forensic Science 1)  
This is a general introduction of the scientific and medical basis of forensic pathology. The scientific aspects of death investigation will be emphasized including cause, manner, and time of death. Emphasis will be placed in developing skills to critically examine the published forensic scientific and medical literature. Also included are Human Right's death investigation, and custodial death.

[26L, 13T]

*Prerequisite:* FSC239Y; BIO204H/

210H/380H

*Recommended Preparation:* PHL271H  
(First choice given to FSC Majors and Specialists)

## FSC402H5 Forensic Toxicology

(Formerly: Topics in Forensic Science 2)  
This course will focus on topics in forensic toxicology. Lectures will include a review of pharmacokinetics, analytical techniques and quality assurance measures used in forensic toxicology, the effects of drugs on human performance and post-mortem toxicology of illicit drugs, pharmaceutical drugs and other poisons. The major focus of this course will be the role that a forensic toxicologist plays in criminal and death investigation. Tutorials will include case study exercises and mock court demonstrations with the possibility for field trips to court and forensic agencies in Ontario.[26L, 13T]

*Prerequisite:* FSC239Y; CHM140Y

*Recommended Preparation:* PHL271H  
(First choice given to FSC Majors and Specialists)

## ANT439Y5 Advanced Forensic

### Anthropology

The identification of the remains of victims of homicide, mass disasters and political atrocities. Special methods are used in the recovery and identification of human skeletal remains for presentation in courts of law. [26L, 52P]

*Prerequisite:* ANT334Y

## FSC481Y5 Mentorship in Forensic

### Science

A research paper or term paper is required. Placements are largely dependent upon availability of positions and may involve a research project or part-time work in a forensic unit or related facility. Forensic units include the Centre of Forensic Sciences, the Office of the Chief Coroner of Ontario, and a variety of local, provincial and national police and private agencies. Students will be teamed with an appropriate expert in the field of interest.

*Exclusion:* FSC439Y

*Prerequisite:* Enrolment in Forensic Science Major or Specialist and permission of instructor.

### Notes:

1. Students must contact the program office during the January preceding the placement.
2. Students must have one free day (Monday - Friday) to work in a placement position, and must be in the final year before graduation. **Students are expected to provide their own transportation to placement work site.**
3. Five week placements during the summer may be possible.

**French***Professors:*

- C. Elkabas, B.A., M.A., Ph.D.  
 C. Evans, LèsL., M.A., Ph.D.  
 M. Lord, B.A., M.A., Ph.D.  
 P. Michelucci, LèsL., MèsL., M.A.  
 D.E.A., Ph.D.  
 E. Nikiema, LèsL., MèsL., M.A., Ph.D.  
 D.A. Trott, B.A., M.A., Ph.D.

*Adjunct Professors:*

- C. Besnard (York University)  
 A. Mollica (Brock University)

*Associate Chair and Faculty Advisor:*

Professor Michel Lord  
 Room 237, North Bldg.  
 (905) 828-5292

*Departmental Secretary:*

Maria Da Mota  
 Room 227, North Bldg.  
 (905) 828-3747

The French program at UTM offers students a wide range of courses designed to provide the basis for the study of our French heritage.

For students wishing to pursue a program leading to a high level of competence in French, we offer two series of language courses: FSL105H, 106H, 205H, 206H, 261Y, 305H/306H, for non-specialists; FRE180Y, FSL280Y, 382H, 383H, for specialists, maximizing contact with instructors and using modern methods. In addition, students wishing to improve their language competence in the oral skills, have access to a state-of-the-art audio-lingual laboratory and, for the written skills, to a variety of computerized aids in the computer laboratory.

Native speakers of French are not permitted to take for credit FSL105H, 106H, 205H, 206H, 305H, 306H, 383H, FRE180Y. Such students, however, will be admitted to any FRE course for which FRE180Y is a prerequisite.

For those wishing a full program of French Studies, our offerings satisfy the requirements for certification in French Language and Literature, Teaching and Learning of French and Italian, and French Language and Linguistics. These offerings

comprise a variety of fields: French as a language system (including Business French); critical approaches to literature; teaching and learning French (including teaching with new technology); and the study of both French and Quebec Literatures.

A fuller description of the French program is available in the departmental *French Handbook*, which is produced in the spring. It is available from the French Department Secretary, Room 227, North Bldg. or from the Associate Chair's office, Room 237, North Bldg. It is an essential supplement to the Calendar and students are urged to consult it. You may also refer to the UTM Web site at:  
[www.utm.utoronto.ca/~w3french/brochure200.htm](http://www.utm.utoronto.ca/~w3french/brochure200.htm).

UTM's French graduates have moved on to advanced studies and to careers in business, teaching, translation, transportation and other fields where skills in French are a necessity.

*Notes:*

1. Completion of at least 3.0 courses in the Specialist program and an average of 70% in 2.0 of the 3.0 courses, may entitle a student to participate in third year in the Study Elsewhere Program in France or at Laval, Quebec.
2. The series FSL105H to 306H, which may be taken as part of a Minor program, is intended to provide instruction for students specializing in other disciplines who wish to develop a practical knowledge of French. The series emphasizes self-help beyond the limits of the individual courses.
3. Students who are not specializing or majoring in French may be admitted to French courses in Literature and Linguistics, with permission of the Department, if they demonstrate the appropriate level of competence in French. Students seeking admission to FSL205H/206H or FSL305H/306H will be required to provide a high school record as evidence of their level in French. Particularly well-qualified students may, as the result of a language proficiency test, be permitted to enrol in 200 level language courses.

The following is a guide for first year course selection.

**FSL105H** No knowledge of French (no secondary school studies).

**FSL106H** Very limited knowledge of French (Grades 9 or 10 maximum).

**FSL205H/206H** Intermediate knowledge of French (Grade 11 or equivalent).

**FSL305H/306H/FRE180Y** Secondary School graduation French-core program (OAC) or equivalent.

**Consult Department**  
Extended French (OAC (or equivalent) - Extended)

**FSL200 level**  
Immersion French (OAC (or equivalent) - Immersion)

**Consult Department**  
French-language schooling.

#### Courses offered every year:

**FSL105H, 106H, 205H, 206H, 261Y, 280Y, 305H, 306H, 382H, 383H; FRE180Y, 240Y, 272Y, 290Y, 345H; JFI225Y**

#### **FSL105H5 Functional French I**

The objective of this course, which serves as a starting point in our series of FSL courses, is to introduce our students to the phonetic system of the French language, to teach basic vocabulary and to develop awareness of the functions of language in different situations and contexts. [39L, 13P]

*Exclusion:* Not open to native speakers of French. Not open to students who have studied French in secondary school/ FSL100H

#### **FSL106H5 Functional French II**

Through the use of teaching materials adapted to their level, our students will continue to develop their linguistics abilities and to use them in specific situations. For instance, they will learn how to ask for information, how to refuse or accept an offer. On completion of this course, a linguistic system of basic but useful structures will have been assimilated. [39L, 13P]

*Exclusion:* Grade 11 French or higher/ FSL102H. Not open to native speakers of French.

*Prerequisite:* FSL105H or permission of Department

#### **FRE180Y5 Introduction to French Studies**

A broad introduction to French studies combining: the social and cultural history of France, as a guide to understanding its literature; readings from major literary movements; and a systematic study of grammar and composition through a variety of exercises designed to improve accuracy and logical structure in written French. [39L, 39S]

*Exclusion:* FRE150H/150Y/161Y/171Y/ FSL181Y/182H/305H/306H

*Prerequisite:* FRE121Y/FSL121Y/OAC

French or placement by the Department  
*Recommended Co-requisite:* FRE190Y

#### **FSL205H5 Functional French III**

This course is intended as a consolidation of French language skills. Grammar will be taught with a view to serving communicative functions and spontaneous speech will be our main idea of emphasis. Written and spoken documents will be used as models for language study. [39L, 13P]

*Exclusion:* OAC French or equivalent, FSL121Y. Not open to native speakers of French.

*Prerequisite:* FSL106H/Grade 11 French or placement by the Department

**FSL206H5 Functional French IV**

This course approaches language as an efficient vehicle for communication. Students will further their knowledge of French lexicon and structure. They will identify appropriate ways of tailoring their own spoken and written discourse.

[39L, 13P]

*Exclusion:* OAC French or equivalent, FSL121Y. Not open to native speakers of French.

*Prerequisite:* FSL205H

**JFI225Y5 Teaching and Learning a Second/Foreign Language**

In this course, students will learn how language teaching methods have evolved since the 1960s. Different teaching approaches (behaviourist, audio-visual, communicative, cognitive and humanistic) will be examined with special emphasis on the teaching of the four skills (reading, writing, listening, speaking) and culture, on the roles of the teacher and the learner in the classroom. [26L, 26T]

**This course is taught in English and is open to students from other disciplines. Students enrolled in this course who submit all written work in French may petition the Department for credit towards a Specialist or Major in French.**

*Prerequisite:* For students doing the work in English, 4.0 credits. For those doing work in French and/or Italian: FRE180Y and/or ITA200Y (or equivalent) or Permission of the Department

**FRE240Y5 Introduction to Literary Analysis**

Techniques of literary criticism and analysis, based on a detailed study of selected novels, drama and poetry from the 17th century to the present. [52L, 26T]

*Pre- or Co-requisite:* FRE180Y (or equivalent) or permission of the Department

**FSL261Y5 Practical French II**

Emphasis is placed on both reading and listening comprehension, expression, both written and oral, and self-instruction.

Particularly intended for students who wish to maintain and improve their general knowledge of French without wishing to specialize. [78L]

*Exclusion:* FSL280Y/282H/283H/262H/263H. Not open to native or fluent speakers of French.

*Prerequisite:* FRE180Y or equivalent/OAC French (Immersion) or FSL305H/306H

**FRE272Y5 The Structure of Modern French: An Introduction**

A descriptive study of contemporary French: phonetics and phonology, morphology, syntax and semantics. Theoretical discussion in general linguistics. [52L]

*Prerequisite:* FRE180Y or equivalent

**FSL280Y5 Language Practice II: Written and Oral French**

Improvement of the four language skills (writing, reading, listening and speaking) for students specializing in French studies at the university. [52L, 26P]

*Exclusion:* FSL261Y/262H/263H/282H/283H/FRE271Y

*Prerequisite:* FRE180Y or equivalent/OAC French (Immersion) or placement by the Department

## FRE290Y5 Aspects of Francophone Cultures

(Formerly FRE190Y: Aspects of French Cultures)

An in-depth examination of the specificity of various Francophone cultures including France, Québec, Acadie, Louisiana, Martinique and Guadeloupe, West and Central Africa, North Africa, Réunion and Mauritius, French Polynesia. This course aims to give students an overview of the cultures of France and of most French-speaking countries. For students planning to study French literature, it provides a useful background but it is also a general interest course for those who seek a better understanding of Francophonie. Lectures, readings and assignments in English. [52L, 26T]

*Recommended Preparation:* FRE180Y  
**Students enrolled in FRE290Y who submit all written work and exams in French may petition the Department for credit towards a Specialist or Major in French.**

## FRE299Y5 Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 98 for details.

## FSL305H5 Functional French V

This course focuses on the expansion of students' proficiency in French; it is practical and aims at fluency in conversations. Classes will consist of involvement in various situations (acting, group discussions, public presentations, family gatherings, etc.) requiring communicative skills in order for students to use the language. [26L, 26P]

*Exclusion:* FRE180Y. Not open to native speakers or fluent speakers of French or graduates of French immersion programs

*Prerequisite:* FSL206H/OAC French or equivalent/permission of the Department

## FSL306H5 Functional French VI

Emphasis is put on the understanding of written and audio-visual documents (films, documentaries, radio, internet, etc.) to develop students' confidence autonomy in the use of language. At the end of the series, students should be functional in daily life situations requiring the French language. [26L, 26P]

*Exclusion:* FRE180Y. Not open to native speakers or fluent speakers of French or graduates of French immersion

*Prerequisite:* FSL206H/OAC French or equivalent/permission of the Department

## FRE312H5 Quebec Novel II: The Quiet Revolution

The evolution and revolution of contemporary Quebec fiction. [26L]

*Exclusion:* FRE310Y

*Prerequisite:* Any 200 level FRE "Specialist" course

*Recommended Preparation:* FRE210Y/240Y

## FRE317H5 Quebec Theatre II: Contemporary Directions

The affirmation of Quebec theatrical forms: search for new dramatic structures. [26L]

*Exclusion:* FRE311Y

*Prerequisite:* Any 200 level FRE "Specialist" course

*Recommended Preparation:* FRE210Y/240Y

Not offered in 2003-2004

## FRE335H5 Teaching and Learning French with New Technology

An introduction to the use of computers, as well as theories underlying such use in the area of French language and literature studies. Students will examine several computer programs in order to assess their pedagogical benefits. They will also learn the teaching and learning of French as a second language via electronic mail as well as the applications of computer programs for literary analysis of texts. [13L, 13T]

*Prerequisite:* JFI225Y/any 200 level FRE "Specialist" course

### FRE345H5 Teaching and Learning French Since the 1970s

The aim of this course is to present recent research and examine *how it is applied to the classroom in two important domains of teaching and learning French as a second language:*

1. A review of the history of French immersion in Canada, including the implications of early, late and partial Immersion. Teaching techniques will be explored and analyzed.
2. A presentation of recent developments in the teaching of reading and written comprehension. Reading materials and strategies to improve reading skills will be explored. [13L, 13S]

*Prerequisite:* JFI225Y/any 200 level FRE "Specialist" course

### FRE355H5 Psycholinguistics and Teaching and Learning French as a Second Language

An introduction to the study of the main psychological factors that influence the acquisition and use of French as a second language. To better understand the communication needs of the language learner, we will examine the learner's style (attitude, motivations, learning patterns) in relation to cognitive processes such as perception, production and memory. Emphasis on various teaching strategies. [26L]

*Prerequisite:* JFI225Y/any 200 level "Y" FRE course

### FRE359H5 Studies in Drama I: Pre-1800

French theatre, as it gained prestige and recognition among the upper classes in the late 1630s, became an important medium for propaganda. This course will examine the politics of French theatre and the representation of power in a selection of works from the seventeenth and the eighteenth centuries. Lectures will provide historical insights to help the students understand the period, focusing on pivotal concepts such as the theory of divine right, the ethics of power, court society, etc. Questions of genres (tragedy, comedy, opera) and style, performance practices (decors and stage machinery), acting (gesture and rendering) and production, will also be discussed. [26L]

*Prerequisite:* Any 200 level FRE/FSL course

*Recommended Preparation:* FRE240Y

### FRE364Y5 Prose Fiction from 1800-1900

The ways in which such writers as Balzac, Stendhal, Flaubert, Maupassant and Zola developed the techniques of the novel while exploring such themes as ambition, alienation and class struggles. [26L, 26T]

*Exclusion:* FRE364H/365H

*Prerequisite:* Any 200 level FRE "Specialist" course

*Recommended Preparation:* FRE240Y

### FSL365H5 Writing Information

This course focuses on written genres where clarity and detail are first and foremost: information texts (non-fiction, non-narrative). Examples from popular science and technology magazines will be studied. Students will learn how to write precise and correct prose in order to understand how content accuracy is linked to form accuracy. Text, sentence and word level difficulties will be studied. Students will also produce regular reports, and a final research-based written project on a subject chosen by the student. [26L, 26P]

*Prerequisite:* FSL305H, 306H

## FSL366H5 Writing French: Language of Business

A study of vocabulary, grammar and writing techniques involved in business situations (e.g. economics, industrial relations, banking, marketing). [39S]

*Exclusion:* FRE301H

*Prerequisite:* FSL261Y/262H/280Y/282H/305H, 306H/365H

## FRE367H5 Early Twentieth Century French Novel

Prose fiction of the first half of the twentieth century including works by Proust, Gide, Malraux, and Bernanos. [13L, 13T]

*Exclusion:* FRE426Y

*Prerequisite:* Any 200 level FRE "Specialist" course

*Recommended Preparation:* FRE240Y

Not offered in 2003-2004

## FRE368H5 From the Existentialist Novel to the New Novel

Problems of form and theme in selected novels by Sartre, Camus, Robbe-Grillet and Duras. [13L, 13T]

*Exclusion:* FRE426Y

*Prerequisite:* Any 200 level FRE "Specialist" course

*Recommended Preparation:* FRE240Y

## FRE373Y5 General History of the French Language

(Formerly FRE273Y)

A study of the nature and pattern of change from Latin to contemporary French. The chronological development of French from its beginnings with special attention to the evolution of sounds, forms and word order, to the influence of language policies and the origins of regional variations in the Francophone world. [52L]

*Prerequisite:* FRE180Y or equivalent

## FRE375Y5 Comparative Stylistics

A comparative study of the characteristics of French and English expression and how they pertain to the problems of translation.

[26P, 26T]

*Exclusion:* FTR375Y(G)

*Prerequisite:* FSL282H/any 200 level FRE

"Specialist" course

## FRE376H5 French Phonology and Phonetics

A study of the phonological system of modern French based on actual samples of speech taken from different regional varieties and socio-economic groups. [13L, 13T]

*Prerequisite:* FRE272Y

## FRE378H5 French Syntax

A study of the distribution and relationships of the syntagmatic components of contemporary French, the sentential structure including the principle of coordination, subordination and expansion.

Theoretical approaches. [13L, 13T]

*Prerequisite:* FRE272Y

## FSL382H5 Language Practice III: Written French

Consolidation of writing skills already acquired by students specializing in French studies, with emphasis on advanced process writing techniques. [39S]

*Exclusion:* FRE380H. Open to francophones with permission of the Department

*Prerequisite:* FSL282H/280Y

## FSL383H5 Language Practice III: Oral French

Consolidation of oral production and aural comprehension. [26S, 13P]

*Exclusion:* FRE381H. Not open to native speakers of French.

*Prerequisite:* FSL280Y/283H

## FRE387H5 French Morphology

A study of the morphological system of modern French, its relationship to syntax and phonology; theoretical notions derived from the analysis of specific data. Special attention will be given to the methods of analysis and classification, as well as selected morphological categories (verbs, nouns, etc.). [26L]

*Prerequisite:* FRE272Y

**JFI388Y5 Testing and Evaluation of Multimedia Language Resources**

This course will examine the resources (stand alone software and Web) for Teaching and Learning Second Languages, and will assess their pedagogical effectiveness. [52P]

**This course will be taught in English and is open to students in other disciplines.**  
**Students enrolled in this course who submit all written work in French may petition the Department for credit towards a Specialist or Major in French.**  
*Prerequisite:* JFI225Y

**FRE390H5 Women of the Francophone World**

(Formerly FRE290H)

An in-depth examination of the status of women in various Francophone countries and of the representation of women in a selection of literary works from France, Québec, the Caribbean and Africa. The course will focus on the varying status of women due to the diversity of Francophone cultures, differences in social class and consequences of slavery in former French colonies. Lectures, readings and assignments in English. [13L, 13T]

*Prerequisite:* None if work is done in English

**FRE180Y is a prerequisite for students wishing to count this course towards a Major or Specialist in French. Such students must submit all written work and exams in French and petition the Department.**

**FRE395H5 Films of the Francophone World**

A study of a selection of films from Francophone countries, e.g. France, Québec, Burkina-Faso, Senegal. Course taught in English. Knowledge of French useful but not required. [13L, 13P]

**FRE446H5 Advanced Topics in Literature**  
A study of fiction, non-fiction or theoretical approaches in French. [26L]

*Prerequisite:* Any 200 level "Specialist" course or P.I.

*Recommended Preparation:* FRE240Y

**FRE476H5 French Semantics**

Various approaches to the notion of meaning; its functioning at all levels of representation. [13L, 13T]

*Prerequisite:* FRE272Y

**JFI488H5 Principles and Strategies for Second Languages Course Design**

This course will conduct a critical appraisal of online course materials, and formulate appropriate pedagogical strategies for their exploitation. [26P]

**This course will be taught in English and is open to students in other disciplines.**  
**Students enrolled in this course who submit all written work in French may petition the Department for credit towards a Specialist or Major in French.**

*Prerequisite:* JFI225Y

*Recommended Preparation:* JFI388Y

**FRE489H5 Advanced Topics in Linguistics: French and Italian Syllable Structure**

A comparative approach to the study of various phonological processes of contemporary French and Italian. Students will be introduced to current issues on the representation of syllable structure and to problems of syllabification. Emphasis will be put on the examination of French and Italian data, and the synchronic functioning of the two languages. Other aspects of modern phonology will also be discussed. [13L, 13T]

*Prerequisite:* FRE272Y

**FRE490Y5 Senior Essay**

An independent research paper on either a literary or linguistic topic to be proposed by the student and supervised by an instructor, culminating in a major research paper.

*Prerequisite:* Permission of the Department

**FRE491H5 Independent Study**

A scholarly project supervised by a member of staff on a literary or linguistic topic of common interest, including readings, discussions and papers.

*Prerequisite:* Permission of the Department

**FRE492H5 Independent Study**

A scholarly project supervised by a member of staff on a literary or linguistic topic of common interest, including readings, discussions and papers.

*Prerequisite:* Permission of the Department

**Geography***Professors Emeritus:*

G. Gracie, B.A.Sc., Ph.Eng., Ph.D., P.Eng.

*Professors:*

B. A. Branfireun, B.Sc., M.Sc., Ph.D.

F. Csillag, B.Sc., M.A., Ph.D.

G.H.K. Gad, Dr.Phil., Ph.D.

R. Jaakson, M.Sc., Ph.D.

T.F. McIlwraith, B.A., M.A., Ph.D.

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Geography studies earth surface processes that determine the current use of the environment as expressed in patterns of human land use.

Geography draws on the earth sciences to understand variations in the physical environment, as well as on the social sciences and humanities in order to understand the ways in which human beings create and organize the regions, economies and landscapes that cover our globe.

Geographical Information Systems are further aspects of the discipline, focused on the acquisition, management and display of spatial information. By combining their interest in physical and human processes, geographers play a crucial role in studying environmental deterioration and in developing strategies for dealing with it.

The Geography curriculum stresses the

integrative nature of the discipline as well as the development of skills in geographical information analysis. Students take courses in both physical and human geography, and proceed through a sequence of courses of increasing depth, thus reinforcing and building on knowledge developed at previous stages. Staff expect students to develop the high levels of geographical problem solving skills required for some of the most dynamic areas of today's job market.

Field studies complement lectures by providing material for workshops, developing skills in geographical information methods, encouraging student involvement in basic enquiry, and building student-staff cooperation. Field work takes place on the campus grounds, in the metropolitan area nearby and further afield, in rural Ontario and far beyond.

Geography offers both B.A. and B.Sc. programs. Other programs coordinated by the Department include Environmental Management (B.A.), Environmental Science (B.Sc.), and Geographical Information Systems (B.Sc.)

Geography has close links with other disciplines and interdisciplinary programs. Students in other fields will find many courses within Geography that complement their interests and expertise. From Literature to Geology, Chemistry to History, Fine Art to Economics, Geography offers new ways of combining and developing knowledge about the environment in which we all live.

The following courses are counted as Science courses for distribution and program purposes: ENV100Y, 377H; GGR214H, 217H, 227H, 261H, 276H, 303H, 305H, 307H, 309H, 311H, 315H, 316H, 319H, 321H, 337H, 338H, 372H, 375H, 376H, 379H, 394H, 407H, 417Y, 463H, 479H, 488H. All **other** GGR courses listed in this Calendar are considered to be "non-Science".

**Please check the Geography web site for current news and updates:**  
<http://eratos.erin.utoronto.ca/>

## **ENV100Y5 The Environment**

For description see **Environment** courses.

## **GGR117Y5 Introduction to Geography**

Basic understanding of geographic principles. Natural systems at both global and meso-scales: climate, hydrologic cycle, landscape form and process, biological systems, soils. Human systems, human-environment interactions, populations, natural resources, economic analysis. [52L, 26P]

## **GGR214H5 Global Weather and Climate**

The climates of the globe are created from the kinds of weather systems which usually occur. This course surveys the weather systems of the globe and the geography which helps to transform them into regional climates. It uses just enough physics to show you how it all works and how we can make informed assessments about ideas on climatic change. [26L, 13P]

*Exclusion:* GGR217Y

*Prerequisite:* GGR117Y/ENV100Y

*Recommended Preparation:* a basic working knowledge of algebra and trigonometry

## **GGR217H5 Hydrosphere Dynamics**

The presence of water on and in the continents, atmosphere and oceans, sustains the Earth's climate, biosphere and life itself. This course takes a systems approach to the movement and storage of water on and in the Earth. Based on the framework of the global water cycle, the stores and transfers of water and energy in the Earth system are investigated from a scientific perspective. Emphases are on the physical processes that control these transfers (e.g. short and longwave energy balances, evaporation, surface and subsurface flow of water). [26L, 13P]

*Exclusion:* GGR217Y

*Prerequisite:* GGR117Y/ENV100Y

## GGR227H5 Ecosystem Geography

A scientific system approach is taken to the study of various subfields of physical geography. Topics in geomorphology, pedology, and biogeography will be stressed. Climatology, hydrology, and glaciology are integrated into the concept of biomes and human influences on the biosphere. Use of analytical tools such as geographic information systems. [26L, 13P]

*Exclusion:* GGR217Y

*Prerequisite:* GGR214H/217H

## GGR228Y5 The Human Geography of Canada

Introduction of human geography themes as demonstrated by Canadian growth and change. Key concepts include demography, social institutions, economic change, multiculturalism, regional disparity, and others. Historical processes and cultural landscape are emphasized. [52L, 26P]

*Prerequisite:* GGR117Y/ENV100Y/8.0 credits

## GGR234H5 Environmental and Resource Management

Principles of environmental and natural resource policy in the context of ecologically sustainable development. World-view with a Canadian focus. Emphasis on institutional instruments. Cases-in-point include acid rain, air and water quality and forest resources. [26L]

*Exclusion:* GGR233Y

*Prerequisite:* GGR117Y/BIO151Y/(152H, 153H)/ENV100Y

## GGR252H5 Marketing Geography

The problem of retail location. The spatial structure of consumer demand and retail facilities. Shopping centres and retail chains. Techniques for site selection and trade area evaluation, location strategies, retail planning. [26L]

## GGR255H5 Perspectives On Current Population Issues

Current discussions on the "population problem" are examined in light of historical writings. Optimum population size, political strength and the tradition of pessimism in population theory. [26L, 13P]

## GGR256H5 Recreation Geography

Introduction to the spatial organization and social, economic, and environmental impacts of recreation. Open space and outdoor amenities for recreation. Social trends, demand, and supply of recreation goods and services. [26L]

## GGR261H5 Introduction to Geographical Information Systems

Data sources, algorithmic requirements, analytical performance, project management. Computing systems, databases, thematic mapping and spatial analysis are introduced. [26L, 26P]

*Prerequisite:* GGR117Y/ENV100Y

## GGR276H5 Geographic Information Processing and Mapping

Fundamentals of relational database and geodatabase design and management to support environmental modelling and the policy making process. Geographic data processing in socio-economic and scientific research. Assessment of statistical software reliability. Practical foundations for understanding networking and privacy in a computerized society. [26L, 13P]

*Prerequisite:* GGR117Y/ENV100Y

## GGR288H5 World Fresh Water Resources

(Formerly GGR334H: Water Resources Management)

World geography of freshwater resources. Ethics and international principles of human water rights. Uses and abuses of accessible freshwater stocks and wastewater. Case studies of ground water, lakes and rivers (focus: Great Lakes; international watersheds), dams and diversions, water reclamation and reuse. Issues of water quality and quantity for health, and for food production. [26L]

*Exclusion:* GGR334H

*Prerequisite:* GGR117Y/ENV100Y

## GGR289H5 World Food Resources

(Formerly: The Geography of World Food) World geography of major foodlands and staple crops. Challenging myths about world hunger and food security. The historical development of food production worldwide in step with population increase including: agricultural innovations, diffusions (domestications, the plow, irrigation), subsistence vs. commercial farming, the Green Revolution and beyond, the emerging Gene Revolution. Increasing industrialization and globalization of agriculture, food trade. Ecological agriculture and fair trade alternatives. [26L]

*Prerequisite:* GGR117Y/ENV100Y

## GGR299Y5 Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 98 for details.

## GGR303H5 Geographic Data Acquisition

Acquisition of data by field survey methods. Processing these data to determine positions and direction. Field-note procedures.

Preparation of maps using a geographical information system. [13L, 26P]

*Exclusion:* GGR215H

*Prerequisite:* GGR261H/276H

## GGR305H5 Biogeography

Analysis of past and present plant and animal distributions, and of the environmental and biological constraints involved. The course emphasizes the impact of continental drift, Quaternary climatic changes and human interference on contemporary patterns. [26L]

## GGR306H5 Village Environments in the Developing World

Sixty-five percent of the population in Asia and Africa live in non-urban environments. Village life continues to be vital in six (overlapping) culture regions: Confucian, Hindu, Islamic, Malay-Javanese, Christian and African. The course examines: traditional practices; regional dynamics with cities; effects on villages of the green revolution and economic globalization; and the need for sound cultural, economic and environmental adaptations to ensure village sustainability. [26L]

*Prerequisite:* GGR117Y/ENV100Y

## GGR307H5 Soil Management

Application of soil geography to problems of resource use and management. Soil erosion processes and conservation techniques. Soil water management. Drainage and reclamation of wetland soils. Soil pollution issues. Soil capability classification.

Selected problems of soils in arid and semi-arid regions, the humid tropics, as well as the Arctic and sub-Arctic. [26L, 13P]

*Prerequisite:* GGR214H/217H, 227H

## GGR308H5 Parks and Wilderness Environments

(Formerly GGR257H: Parks and Conservation Management)

National, provincial and municipal parks and conservation areas, and other wild landscapes in Canada. Comparisons with parks and conservation practices in the United States and African countries.

Included are the historical development of parks, their spatial organization and the functions of wilderness in the wider landscape. Also covered: the changing nature of parks' planning, management and use, including problems such as high demand and ecological risk. [26L]

*Exclusion:* GGR257H

*Prerequisite:* GGR117Y/ENV100Y

# **Geography**

## **GGR309H5 Wetlands: Science, Management and Preservation**

Wetlands are an integral part of our biosphere, playing fundamental roles in the modification of water quality, biodiversity and the global carbon cycle. This course focuses on the definition, classification, hydrology and biogeochemistry of wetland systems. The latter part of the course builds on this physical foundation by introducing management issues associated with wetland preservation, restoration and creation.

[26L, 13P]

*Prerequisite:* GGR214H/217H, 227H, or P.I.

*Recommended Corequisite:* GGR315H

## **GGR311H5 Landscape Biogeography**

A geographical, multi-scale perspective on the relationships between land cover change and the distribution, movement, dispersal, abundance, and diversity of avian and mammalian species. Landscape measures such as dominance, contagion, shape, patch/edge measures, connectivity will be considered in relation to land use/land cover change and distribution of selected species. The juxtaposition of cover types will be analyzed and changes in landscapes related to selected species. Various research methods are discussed and work is done using, geographic information systems to analyze landscapes in conjunction with bird and mammal count data. [26L, 13P]

*Exclusion:* GGR310H(UTM)

*Prerequisite:* GGR(227H, 214H/217H)/ BIO205H/P.I.

## **GGR315H5 Physical Hydrology**

(Formerly: Hydrology)

This course centres on the physical principles involved in the occurrence and movement of water on and beneath the Earth's surface. Watershed-scale hydrologic systems are investigated, along with basic principles of fluid mechanics. Open channel hydraulics, soil water and groundwater processes are investigated. The importance of understanding water movement in the environment by exploring the relationship of hydrology to other environmental sciences is stressed. [26L, 13P]

*Prerequisite:* GGR214H/217H/P.I.

## **GGR316H5 Hillslope Geomorphology**

Systems approach to hillslope geomorphology studies; processes of erosion and deposition; mass wasting; slope forms of humid and arid regions; process-response models; applied aspects. [26L, 13P]

*Prerequisite:* GGR214H/217H, 227H

## **GGR319H5 Field Studies**

Mission-oriented investigation of physical and cultural phenomena. Field observations and samples collected, analyzed, and reported in seminar. This course involves full-day projects in the week of September preceding the start of regular classes. [39P]

*Prerequisite:* GGR117Y/ENV100Y;

GGR228Y/1.0 credit from 214H/217H/227H

*Recommended Preparation:*

GGR261H/276H

## **GGR321H5 Geographic Information Processing**

Problem solving using geographic information systems (GIS). Essential distributed computing aspects of GIS are presented. Among topics covered are the use of logic in spatial analysis, line-of-sight analysis, route selection, site selection, and landscape analysis. Hands-on assignments are emphasized. [13L, 26P]

*Prerequisite:* GGR261H

## **GGR325H5 Economic Geography**

Modern theoretical spatial economics. Land use theory, central place theory, locational analysis, and transport processes. Planning and policy questions. [26L]

## **GGR329H5 Rural and Resource Landscapes**

Environmental impact and land exploitation by societies over many centuries, and the rural and agricultural landscapes that result. Case studies of food, clothing, shelter. Examples from Europe and USA.

[26L, 13T]

*Prerequisite:* GGR117Y, 228Y/3.0 credits in Social Sciences or Humanities at 200+ level.

## GGR333H5 Energy and Society

The evolution of mankind's ability to control and manipulate energy. Forms of energy and use; energy eras and transitions; the role of economic development; environmental consequences of consumption. The limits of technology and the future for low-energy societies. [26L, 13T]

*Prerequisite:* Any 8.0 credits

*Recommended Preparation:* GGR117Y/  
ENV100Y

## GGR337H5 Environmental Remote Sensing

Monitoring environmental change; soil-water-plant system. Remotely sensed digital images. Computer-assisted interpretation, preprocessing and pattern recognition. Resource mapping and modelling.

[26L, 26P]

*Prerequisite:* GGR(214H/217H/227H),  
(261H/276H/362H)

## GGR338H5 Environmental Modelling

An application of environmental models to contemporary problems of decision-making. The course demonstrates the relevance of techniques of data management (statistics, computer systems) to issues facing Canada and the global community. [26L, 13P]

*Exclusion:* GGR335H

*Prerequisite:* Any 8.0 credits, including  
GGR276H; a course in Statistics  
recommended.

## GGR340H5 Urban Environments

Urbanization trends worldwide. Urban ecology and the linear metabolism of cities. Urban activities and their impacts on air, water, land and biota, especially people. Urban indicators and State of Environment Reporting. Future scenarios. Environmental policies, planning and management.

Towards a greater ecological integrity and sustainability for cities and their hinterlands. Focus on the Greater Toronto Area and cities in the developing world. "Best practices" introduced. [26L]

*Prerequisite:* GGR117Y/ENV100Y

## GGR345H5 Environmental Issues in the Developing World

The course analyzes those issues that are environmental priorities in the developing world, such as water supply, deforestation, soil erosion and waste management. These are compared with the atmospheric concerns that are paramount in richer, industrialized countries. [26L, 13T]

*Prerequisite:* Any 8.0 credits

## GGR349H5 Cities in Transition

(Formerly: Suburbs in Transition)

Large cities have always been in transition. This course explores the changes in economy, life styles and technology as they are connected with the changing physical fabric and pulse of metropolitan areas. Lectures and readings are accompanied by primary observations of urban life. This includes the recording of the course participants' daily routines in the city. [26L, 13P]

*Prerequisite:* 8.0 Social Science credits

## GGR353H5 Geography of Health and Health Care

This course provides an introduction to the geography of health and health care, emphasizing the links between health and place, and covers six broad thematic areas including the development of health geography as a sub-discipline, data collection/analysis, medical, social, and cultural models of health/illness, health systems delivery, and inequalities. [13L, 13S]

*Prerequisite:* any 8.0 credits

*Recommended Preparation:* GGR117Y

## GGR355H5 World Regions and our Ecological Footprint

What is happening on the land from which we draw our resources? The cultural and ecological impacts of production for export in selected world regions, for several categories of Ontario's resource consumption including grains, tropical fruits, vegetables, wood and fibres. Examples that "lighten our footprint" through equitable and ecologically sustainable alternatives to present practices. [26L, 13T]

*Prerequisite:* GGR117Y/ENV100Y

## GGR359H5 Geographies of Cities in History

The process of urbanization and especially the physical, economic and social development of cities between European Antiquity and the early 20th century. This history is examined critically in terms of shaping current urban patterns and the ways of current thinking about cities. [26L, 13T]

*Exclusion:* GGR218Y

*Prerequisite:* GGR117Y, 228Y/3.0 credits in Social Sciences or Humanities at 200+ level.

## GGR361H5 Understanding the Urban Landscape

Deciphering change in the physical form of neighbourhoods, including a substantial amount of field work in the inner city. Review of the evolution of urban form and introduction to the interplay of private and public forces that shape the built-form of Canadian cities. [26L, 13P]

*Prerequisite:* At least 8.0 credits

## GGR363H5 The Seas

The relationship of mankind to the oceans, from ancient to modern times: exploration, trade, migration, technology, oceanic resources, ports, coastal land use, and sovereignty. The seas in lore and literature. [26L, 13T]

*Prerequisite:* At least 8.0 credits.

## GGR365H5 The Geography of World Trade

This course uses geographical principles and theories with a business perspective to help students understand globalization and the rise and impact of multinational corporations. This course examines the location and movements of the world's resources, including natural resources, labour, money and technology. [26L, 6T]

## GGR366H5 Historical Toronto

Toronto's history from beginnings in 1793 to 1950s. Emphasis on City of Toronto, but "suburban" expansion after 1914 is also considered. Selected aspects are the economy of the city, the changing location of places of work, the emergence and change of neighbourhoods (including immigrant and "ethnic" areas); the evolving infrastructure and built form of the city. Students are introduced to a range of primary sources available for the study of Toronto's history. [13L, 13P]

*Prerequisite:* At least 8.0 credits.

## GGR367H5 India and South Asia

A regional survey of the physical, social and economic landscape of India and neighbouring states of South Asia, with special emphasis on current developments. Roots of ancient civilization, cultural divisions and the drive for national unity, colonial and post-colonial politics, international relations. Natural resources, population pressure, economic development, social change. [26L, 6T]

*Exclusion:* GGR489H (1995-96)

*Prerequisite:* Any 8.0 credits

*Recommended Preparation:* GGR228Y/234H

## GGR368H5 Historical Geography of Ontario

Ontario from its founding to the present: settlement and ethnic roots, agriculture, transport, industrial growth and urbanization. The cultural landscape and regional literature receive attention.

[26L, 13T]

*Prerequisite:* At least 8.0 credits

## GGR372H5 Geographical Analysis of Land Resources

This course focuses on the nature of land resources as can be described by quantitative and qualitative geographic data. Patterns, regions and processes of the soil-water-plant system are emphasized. Lectures highlight analysis and synthesis, interactions and models. Special attention is paid to hierarchies and scale in space and time.

[26L, 13P]

*Prerequisite:* 1.0 credit from GGR 200 level courses.

*Recommended Preparation:* GGR261H/321H.

## GGR375H5 Physical Environment of the City

The physical structure of the city results in a distinctive local climate that is linked to air and water quality, as well as to energy use. A geographical information system is used to assemble physical information from which to model the urban climatic environment, taking the example of Mississauga. Particular emphasis is placed upon the role of field measurements and satellite data as sources of geographical information. [26L, 13P]

*Exclusion:* GGR317Y

*Prerequisite:* GGR117Y, (214H/217H/227H), (218Y/228Y), (261H/276H)

## GGR376H5 Hydrogeology

An introduction to the principles of groundwater flow with emphasis on their application to the development of groundwater supplies, construction dewatering, and contaminant migration. The main components of the course are: theory of groundwater flow, well drilling procedures and construction, data collection and evaluation, groundwater chemistry, groundwater assessment procedures, dewatering system design, and simple groundwater models. [26L, 13P]

*Prerequisite:* OAC Chemistry/CHM140Y, 1.0 credit from GGR214H, 217H, 227H

## ENV377H5 Global Environmental Change

(Formerly: Environmental Problem Solving)

For description, see Environment courses.

## GGR379H5 Advanced Field Methods in Physical Geography

Structured around field work, the course includes one major field trip. Students are responsible for reading selected articles relating to the study areas prior to visiting the field. Projects involve mapping and data analysis. A one week field trip outside Southern Ontario is required in order to provide a contrasting environment to that of the local area. [39P]

*Prerequisite:* Any 3.0 courses drawn from one or more of the following: Physical Geography, Geology and Biology.

## GGR380H5 Communicating with Maps

Cartographic positivism. Myth and meaning in maps. Cognitive cartographic theory, cartographic ethics and map use and misuse in the mass media. The political and social discourse in maps is diffused through cartographic criticism, which includes the application of graphic logic and design principles, and through an understanding of external and internal power relations in maps. [26L, 13P]

*Prerequisite:* Any 5.0 credits from Geography or CCIT

## GGR389H5 Advanced Field Studies in Human Geography

This course involves students in advanced methods of field work in human geography. Emphasis is placed on the integration and interpretation of documentary evidence (historical and archaeological) with the physical evidence in the field, including the interpretation of landscape change. A one week field camp in a North American locale is required. [39P]

*Prerequisite:* P.I.

# **Geography**

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## **GGR393H5 Methods of Environmental Assessment**

Methodologies for measuring and predicting the impact of development on the bio-physical and socio-economic environments. Environmental assessment, law and institutions, environmental mediation, monitoring, mitigation, evaluation, risk assessment. The types of impact assessment (IA) methods examined vary from year to year (e.g. economic IA, ecological IA). [26L, 6P]

*Prerequisite:* ENV100Y, ECO100Y/  
POL100Y

*Corequisite:* GGR234H

## **GGR394H5 Special Topics in GIS**

Studies of selected topics in Geographic Information Systems not covered in regular courses.

*Prerequisite:* P.I.

## **ENV400Y5 Environmental Internship**

For description see Environment courses.

## **GGR407H5 Ecohydrology**

(Formerly: Catchment Hydrobiogeochemistry)

Watershed hydrologic controls on water quality are emphasized. Topics include hydrologic flowpaths, mixing models, isotopic and geochemical tracers and the interactions amongst watershed biologic, geologic and hydrologic systems. Students are expected to conduct independent study. [26L]

*Prerequisite:* GGR309H/315H/376H/P.I.

## **GGR417Y5 Research Project**

Designed to give students experience in the definition and execution of a research study under the guidance of a member of Faculty. [13P]

*Exclusion:* All other courses in independent research

*Prerequisite:* Completion of 3rd year requirements for the Major/Specialist programs in GGR.

## **GGR436H5 Geography of Tourism**

Travel patterns, economic, political, social and environmental impacts of tourism, tourism demand, supply capability assessment and environmental quality. [26L]  
*Prerequisite:* 8.0 credits

## **GGR456H5 Environmental Justice**

The course examines environmental justice from a spatial perspective of race, class, and gender; reviews justice arguments in environmental advocacy discourses, and considers policy for prevention, mediation, and retribution. [26L]

*Prerequisite:* 8.0 credits

## **GGR463H5 Geographic Information Analysis and Processing**

(Formerly: Advanced Geographic Information Processing)

Emphasis will be on both the analysis and processing of geographic information. Landscape biogeographic as well as GIS techniques will be emphasized. Extensive hands-on experience with open geographic information systems, statistical analysis, and programming software. [26L]

*Prerequisite:* GGR321H

## **GGR479H5 Special Topics in Physical Geography**

An advanced seminar dealing with topics in physical geography, to be selected according to staff and student interests. [26P]

*Prerequisite:* P.I.

## **GGR488H5 Geostatistics**

Accuracy of spatial databases. Advanced error models of geographic data. Uncertainty. Spatial variability, sampling and estimation. Map comparison, interpolation, simulation. Applications in environmental and social sciences. [26L, 13P]

*Prerequisite:* 0.5 credit STA course at 200+ level; 1.0 credit 300+ level courses in GGR

## **GGR489H5 Special Topics in Human Geography**

An advanced seminar dealing with topics in human geography, to be selected according to staff and student interests. [26P]

*Prerequisite:* P.I.

## GGR493H5 Special Topics in Environmental Management

An exploration of theories, research techniques and policy options relevant to the understanding and solution of environmental issues such as sustainable development, risk management and environmental assessment. [26L]

*Prerequisite:* 5.0 courses from the Environmental Management Major

## German

### Professors:

C. Saas, B.A., M.A., Ph.D.  
S. Soldovieri, B.A., M.A., Ph.D.

*Discipline Representative and Faculty Advisor:* TBA

### Departmental Secretary:

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For more than a thousand years the German-speaking countries have been the cultural and political core of Central Europe. During the last two hundred years their importance has steadily increased, and with the recent developments in Eastern Europe their influence seems bound to grow even further.

The importance of the German language has grown correspondingly: it is the second foreign language after English in the countries of Central and Eastern Europe, and its use is spreading within the European Community. Learning German opens the door to many fields of intellectual, technical and politico-economic endeavour. German scholars have been leaders in Philosophy, the Sciences, History, Archaeology, Sociology and Political Science. German literature is equally distinguished: writers like Goethe, Kafka, Rilke, Brecht, Mann, Grass, etc., have dealt with the widest possible range of human problems and concerns. Significant works of German literature are the focus of the range of literature courses offered, allowing the student to acquire an historical overview of this element of German life and culture.

Our program offers language courses on the beginning, intermediate and advanced levels, with practice in reading, writing, comprehending and speaking German, as well as stylistics, linguistics, and the specialized vocabulary and concepts of Business German. Language and Literature instruction is integrated with the aim of teaching students advanced critical literacy in German.

German Studies also promotes opportunities for students to study and work in Germany, by encouraging participation in

programs established by the German government, by Canadian universities and our own Faculty of Arts and Science's "Study Elsewhere Program".

A knowledge of German is a virtual necessity for specialists in certain disciplines; it is also very useful in certain career areas (e.g., the foreign service, interpretation and translation, librarianship, business and commerce, music, tourism, and, of course, teaching). The successful completion of a four-year program, including seven approved courses in German, may entitle the student to enter the M.A. or Ph.D. program in the Graduate Division of the Department.

Students entering with some previous knowledge of German but without an O.A.C. or equivalent qualification may be asked to write an initial assessment test and will then be advised to take courses at the appropriate level. Students who have taken German in High School to O.A.C. or equivalent level will normally begin with course GER200Y.

Information regarding German studies can be obtained from the Departmental Secretary, Room 227 North Building (905-828-3747), email: mdamota@utm.utoronto.ca.

**Note:**

Students with German-speaking background are expected to consult the Department about their programs. Reading lists for the various courses are available from the Department.

### **GER100Y5 Introductory German I**

An intensive language course for students with no previous knowledge of German. Practice in comprehension, reading, writing and speaking. This is a language course.

[104P]

*Exclusion:* OAC German or equivalent/ GER101H

### **GER101H5 Introductory German I: Continuation**

An intensive language course for students who have studied German, but who have not quite attained OAC level. Practice in comprehension, speaking, reading, and writing. This course is the spring term of GER100Y. This is a language course. [52P]  
*Exclusion:* OAC German or equivalent /GER100Y

### **GER150H5 German Cultural Studies I: Germany and the Germans**

How did Germany come to be a political and economic powerhouse in the European Union? Does cultural and intellectual life in contemporary Germany reflect both eastern and western traditions? How can we define this "Germany" today, as it becomes increasingly multicultural? These and other broad questions are examined in their cultural, social and intellectual history from the Middle Ages to the present. This course is taught in English and is open to all students. [26S]

### **GER200Y5 Introductory German II**

Continuation of work done in GER100Y/101H. Expansion of grammar and vocabulary, practice in comprehension, translation, composition, and conversation. This is a language course. [104P]

*Exclusion:* GER200H/201H, 202Y

This course is **not** open to fluent speakers of German.

*Prerequisite:* OAC German or equivalent/ GER100Y/ 101H

### **GER205H5 German Literature I**

(Formerly GER275H: Introduction to German Literature)

An introduction to the study of German literature and literary concepts. Texts are in the original German. Required for Majors. This is a literature course. [39S]

*Exclusion:* GER275H

*Prerequisite:* OAC German or equivalent/ GER100Y/101H

**GER232H5 German Drama in Translation**  
Representative dramas of the 19th and 20th centuries by such authors as Büchner, Hauptmann, Wedekind, Kaiser, Brecht and Dürrenmatt will be analyzed in depth and the dramatic forms highlighted. When available, a film version of the drama will be discussed. [26S]

**GER300Y5 Intermediate German I**

(Formerly GER300H/301H)

German at the intermediate level: extension of vocabulary, specific problems of grammar, practice in translation, essay-writing, reading and conversation. Students taking this course and intending to major in German must take the equivalent of a full literature course (GER325H/329H/335H/355H) as well. The Department reserves the right to place students in the appropriate course in the series GER200Y, 300Y, 400Y. This is a language course. [78P]

*Exclusion:* GER300H, 301H

*Prerequisite:* GER200Y/201H/202H

**GER305H5 German Literature II**

(Formerly GER304H: Modern German Literature)

Building on the work of GER205H, this course explores texts from the 18<sup>th</sup> to the 20<sup>th</sup> century. This course is required for Majors. [39S]

*Exclusion:* GER304H

*Prerequisite:* GER100Y, 205H/275H

**GER325H5 19<sup>th</sup> Century German Literature**

Introduction to the themes and social and cultural concerns of 19<sup>th</sup> Century German Literature. [26S]

*Prerequisite:* GER205H/305H

**GER329H5 From Enlightenment to Storm and Stress**

Readings include works by Lessing, Lenz, Klinger, and the early Goethe and Schiller. [26S]

*Prerequisite:* GER205H/305H

**GER335H5 German Literature: 1945 to the Present**

Prose and poetry since World War II, from the Stunde Null through the Restoration, the division of Germany, the political 60's and beyond, the questions of the place of the individual in our world today; works by such writers as Böll, Celan, Dürrenmatt, Frisch, Grass, Handke, Bobrowski, and Wolf. [26S]

*Exclusion:* GER320H

*Prerequisite:* GER205H, 305H

**GER351H5 German Cinema I**

(Formerly: Cinema and Society: The Golden Age of German Cinema)

This introduction to German Cinema will provide an historical perspective on German film and the innovations of German film makers. Students will engage with film language and analysis of film. Knowledge of German is not required. [26S, 26P]

*Prerequisite:* GER205H, 305H or permission of instructor

**GER352H5 German Cinema II**

(Formerly: German Cinema as Political and Cultural Text)

An investigation of cultural, political and institutional determinants in German film from 1945 to the present. This course concentrates on the relationship between cultural and cinematic representation through an analysis of DEFA and GDR film, new German Cinema, and contemporary films. Knowledge of German not required. [26S, 26P]

*Exclusion:* GER353Y

*Prerequisite:* GER205H, 305H, 351H or P.I.

**GER355H5 The Theatre of Bertolt Brecht**

(Formerly GER355Y)

This course will study selected plays by Brecht and investigate his dramatic theories and stage techniques. All readings will be in German. [26S]

*Prerequisite:* GER205H, 305H/275H, 304H

**GER400Y5 Advanced German**

(Formerly GER400H/401H))

For students with a firm grasp of German. Study of idioms, translation, essay writing, reading, problems of grammar and oral practice. Introduction to aspects of stylistics. The Department reserves the right to place students in the appropriate course in the series GER200Y/300Y/400Y. [78S]

*Exclusion:* GER400H, 401H*Prerequisite:* GER300H/301H/300Y**GER430H5 Romanticism**

Traces the development of Romantic thought from its origin to its culmination. [26S]

*Exclusion:* GER430Y, 431H, 432H*Prerequisite:* Two of GER325H, 329H, 335H, 355H**GER434H5 Early 20<sup>th</sup> Century German****Literature**

From the turn of the century to the Weimar Republic. Authors include Wedekind, Hofmannsthal, Thomas Mann, Rilke, Musil, Döblin, and Kafka. [26S]

*Prerequisite:* Two of GER325H, 329H, 335H, 355H**GER460H5 Goethe and Schiller**

(Formerly: Goethe and Schiller: Germany's Literary Giants)

Goethe: poet and anti-theorist; Schiller: dramatist and theoretician – two very different writers, yet each achieved major standing both nationally and internationally. Selected works will be examined in the context of their relevance both then and now. [26S]

*Exclusion:* GER460Y*Prerequisite:* Two of GER325H, 329H, 335H, 355H**GER490H5 Independent Study**

A reading and research project in German literature.

*Prerequisite:* Written permission of the instructor and of the Department to be obtained by May 1st for the Fall Session; by November 1st for the Winter Session.

**Greek**

(See Classics)

**GRK100Y5 Introductory Classical Greek**

Introduction to the language and preparation for the reading of Classical Greek literature.

[52L]

*Exclusion:* GRK101H, 102H

Not offered in 2003-2004.

## History

### Professor Emeritus:

D.L. Raby, B.A., Ph.D.

### Professors:

S. Aster, B.A., M.A., Ph.D.  
E. Brown, B.A., M.A., Ph.D.  
R.E. Johnson, B.A., Ph.D.  
M. Kasturi, B.A., M.A., M. Phil., Ph.D.  
L. S. MacDowell, B.A., M.Sc., Ph.D.  
A.C. Murray, B.A., Ph.D.  
J. Noel, B.A., M.A., Ph.D.  
D. Williams, B.A., M.A., Ph.D.

*Discipline Representative and Faculty Advisor:* T.B.A.

### Departmental Secretary:

Julie Waters  
Room 227, North Bldg.  
(905) 828-3725

**Erindale History Handbook.** A fuller description of the History program is available in the *History Handbook*, which is produced in early April. It gives detailed information on course outlines, timetabling and program requirements, and is available from the History Department, Room 227, North Bldg., phone (905) 828-3725. It is an essential supplement to the Calendar, and students are urged to consult it.

History is exclusively neither an art nor a science, but a subtle blend of the two. The historical imagination reaches beyond the limits imposed by scientific method, but it does not enjoy unfettered poetic license. What is not required of art is required of history—to discover what the old universe was like rather than to invent a new one. We study the past in order to influence, no matter how modestly, the world around us and the world within us. Historical inquiry is always a response to the human need for information, an understanding of the broad patterns of social development.

Concentration in history can provide students with the analytical skills and intellectual judgement required in a number of fields. From academic research and teaching to a career in publishing, journalism or the media, the historian's contribution is

substantial. Training in history is appropriate preparation for a career in law or in government service, for example, as a researcher, archivist or policy analyst.

The History program at UTM is designed to give students a comprehensive view of the modern world. Strong core areas in European and Canadian History are supplemented by courses on Britain, Russia, Asia, and the Americas. Economic, Environmental, Cultural and Gender history add an interdisciplinary element. Courses in ancient Greek and Roman History are offered by the Classics Department. Introductory 100 and 200 level courses are normally conducted as a combination of lecture and tutorial; more advanced courses are often offered as seminars, allowing students experience in independent research and in presentation.

Students must register annually, beginning in their second year, with the History Secretary (Room 227, North Bldg.), to ensure their progress through the program.

**Courses offered every year: HIS102Y, 220Y, 241H, 242H, 262Y, 271Y.**

### HIS102Y5 Introduction to History

This course, taught jointly by the entire History faculty, briefly surveys world history, explores what history is, and what historians do. It has been designed to benefit both the History specialist and the student who may wish only to take one course in History. [52L, 20T]

*Exclusion:* HIS108Y, 109Y

### HIS109Y5 The Development of European Civilization, 1350-1945

The social, political, economic, cultural and intellectual structures of western Europe since the High Middle Ages. [52L, 26T]

*Exclusion:* HIS101Y, 102Y, 103Y, 106Y, 108Y

**All 200 Level courses are open to first year students.**

## HIS200Y5(I) Europe, 1300-1700

A survey of Europe in the Early Modern period, showing the origins of the process of modernisation, which later became worldwide. [52L, 26T]

*Exclusion:* HIS243H, 244H

## HIS220Y5(I) The Shape of Medieval Society

An introductory survey of European history from the late Roman Empire to the fourteenth century outlining the major developments that account for the shape of medieval civilization and its influence on subsequent centuries. [52L, 26T]

## HIS236Y5(I) Modern Britain

The major themes of British history from the late seventeenth century - the emergence of industrial society, evangelical humanitarianism, parliamentary democracy, dynamics of foreign and imperial policy, the rise and fall of the welfare state, and the impact of total war. [52L, 26T]

*Exclusion:* HIS238H, 239H, 341H

## HIS241H5(I) Europe in the 19th Century

An introduction to the principal themes of western European history from the French Revolution to the 1890's. [26L, 13T]

*Exclusion:* HIS109Y, 249Y; EUR200Y

## HIS242H5(I) Europe in the Contemporary Era

The evolution of European politics, culture, and society from 1890: the origins and consequences of the two world wars, the Bolshevik Revolution and Stalinism, Fascism and Nazism, the post-1945 reconstruction and division of Europe. This course is essentially a continuation of HIS241H. [26L, 13T]

*Exclusion:* HIS109Y, 249Y; EUR200Y

## HIS250Y5(I) History of Russia

Origins of Russian history, paganism and Christianity, Mongol influences, Muscovite autocracy, westernization to 1800. The imperial regime; the radical intelligentsia; the Revolution and the establishment of the Soviet regime; the Stalinist revolution in agriculture, industry, and society; foreign relations; and the demise of the Soviet Union. [52L, 26T]

## HIS262Y5(I) History of Canada

A survey of Canadian history, beginning with native cultures, then examining both French and English Canada. Themes such as industrialization, urbanization, Canada at war, social and political movements, immigration patterns and regional differences are discussed. Lectures and readings cover different approaches to Canadian history. [52L, 20T]

*Exclusion:* HIS263Y(G)

## HIS271Y5(I) American History Since 1607

A survey of significant developments in American history (e.g., the American colonies, the Revolution, the Civil War, industrialization, the effects of the Cold War) and important characteristics of American society (e.g., social mobility, racism, imperialism). Lectures and readings will combine the perspectives of political, social, economic and diplomatic history. [52L, 26T]

## HIS290Y5(I) Latin American History, 1492-Present

A survey of major processes and themes in Latin American and Caribbean history, from the arrival of Europeans to the present. Lectures, films and readings will include such topics as nationalism, authoritarianism, socialism, neoliberalism, racism, patriarchy, and Latin America's multiple interactions with the outside world. [52L, 26T]

*Exclusion:* HIS291Y(G), 292Y(G)

## HIS307H5 The Russian Revolutions of 1917

The fall of the Romanovs and the coming to power of the Bolsheviks have been controversial. This course examines interpretations of the 1917 events using original sources from 1917 in English. [26L]

*Prerequisite:* A course in modern European history.

## HIS308Y5 The History of Women

A broad survey of women in European society from ancient to modern times. [52L]

*Exclusion:* HIS245Y(G)

*Recommended Preparation:* A course in European history.

**HIS309H5 Anglo-Saxon England**

Political, institutional and social history of England from the fifth to the eleventh centuries. [26L]

*Prerequisite:* A course in medieval history/P.I.

**HIS311Y5 Introduction to Canadian International Relations**

Canadian international affairs in a broader context. Anglo-American, Canadian-American relations; the European background to questions such as the League of Nations, appeasement and rearmament, which directly affected Canada without this country being consulted. [52L]

*Recommended Preparation:* A course in Canadian history or politics.

**HIS313Y5 Canadian Labour**

A study of working people and their ethnic, racial and gender differences, of the Canadian labour movement since the 1830s, and of Canadian radicalism. Social, cultural, economic and regional themes are included as is the study of the changing world of work and technology. [52L]

*Prerequisite/Corequisite:* HIS262Y/  
ECO244Y

**HIS315H5 History by Numbers**

(Formerly HIS451H)

Through a series of case studies, this course will examine the uses of quantitative evidence in history. Published works in various fields of history will be discussed and criticized, and simple exercises will be used to demonstrate methods and problems. [13L, 13T]

*Exclusion:* HIS304H

*Prerequisite:* One History course

**HIS318Y5 Canadian Environmental History**

A historical survey (16th century to the present) that describes the Canadian environment, how and why it changed and attitudes to the environment. Themes include exploration, native-European encounters, settlement, industrialization, resource exploitation; ideas of Christians, scientists, naturalists; modern movements; policy formation; law; selected case studies. [52L]

*Prerequisite:* 8.0 credits

**HIS326Y5 History of Women in Canada, 1600-2000**

This course samples the experience of women in various regions of Canada from pre-contact times through the First World War. Was Iroquoian society a matriarchy? Were women in New France more "liberated" than their 19th century granddaughters? Other topics include domestic servants, fur trade women, suffrage campaigns, Nellie McClung, World War II and Women's Liberation. [26L, 26T]

*Exclusion:* HIS326H, 359H, 459H

*Recommended Preparation:* HIS262Y

**HIS327Y5 From Antiquity to the Middle Ages: Europe 300-800**

Lecture course on the transition from ancient to medieval civilization. Emphasizes the character of the source material and its role in shaping the interpretations of modern historiography. [52L]

*Exclusion:* HIS424Y

*Prerequisite:* Course in ancient or medieval history.

**HIS329Y5 The Conflict of Nationality in Modern Ireland**

A topical analysis of modern Irish history concentrating on the conflict of constitutional, social, revolutionary and cultural nationalism. Topics include Fenianism, Home Rule, the 1916 rising, the partition of Ireland and the "time of trouble" in Northern Ireland since 1968. [52L]

*Exclusion:* SMC348Y

**HIS330H5 Politics and Political Change in Latin America**

Examines major movements and cultures in Latin American politics from independence to present day. Topics include: nineteenth-century militarism; revolutionary socialism in Cuba and Nicaragua; military dictatorships in Argentina, Brazil and Chile; and recent grassroots and transnational political movements. Emphasizes the integral roles of gender, race and the United States in the region's political processes. [26L]

*Prerequisite:* HIS290Y/P.I.

## HIS336H5 Modern American Consumer Culture: 1890-Present

(HIS336H prior to 2001 is "Immigration and Ethnicity in American History" which is NOT an exclusion.)

Examines the history and theoretical treatments of mass consumerism in American society. We will look at the relationship between the market and cultural politics, cultural production, and mass consumption. Specific topics include: the shift from mass production to mass consumption; the growth of department stores; the rise of advertising; the relationship of race, class and gender to consumer capitalism; the development of product brands; and the emergence of global marketing. [26L]

*Prerequisite:* A course in American history

*Recommended Preparation:* HIS271Y

## HIS340Y5 The Reformation in Europe

The focus of this course will be the religious movements of the sixteenth century that are described collectively as the Reformation: Lutheranism, Calvinism, the Radical Reformation and the Counter-Reformation. [52L]

## HIS341H5 Britain in the Era of World Wars

An analysis of the British experience of war and peace in the first half of the twentieth century. [26L]

*Exclusion:* HIS239H

## HIS345H5 Culture and History in Latin America

Examines popular culture and its relation to broader economic, social and political processes in modern Latin America.

Analyzes the way that cultural forms – such as religious practice and belief; dance and sport; music and folklore; urban and rural fiestas; cinema and television – have shaped and been shaped by the evolution of the region since Independence. [26L]

*Prerequisite:* HIS290Y/P.I.

## HIS357Y5 The Renaissance

A cultural history of the 15th and 16th centuries set against the socio-economic background. The course will concentrate upon the development of the Renaissance in Italy and will deal with its manifestations in Northern Europe. [52L]

*Exclusion:* HIS303H(G)

## HIS360Y5 Gender Issues in Canadian History

Did women in early Canada, who ran businesses and convents, experience equality? How were men affected by being perennially cast in the warrior role? Why did "separate spheres" develop, with what effects? Are both sexes equally "nurturing"? Why did male obstetricians replace midwives? Based primarily on Canadian history, the course examines changing expressions of both genders. [26L, 26T]

*Prerequisite:* One previous course in History

## HIS366Y5 War, Migration, and Memory

(Formerly: Rural Canada 1600-1914) Formative events in Canada's past. Great movements of people: the peopling of New France, child immigrants after 1860.

Transformation of the prairies as Mounties marched west, buffalo hunters were placed on reserves, Ukrainians and others built communities. Myth and realities of military encounters on the frontiers and during the Great War. [26L, 26S]

*Exclusion:* HIS366Y taken prior to 2001

## HIS368H5 Canada in the First World War

The First World War offers a focus for examining every aspect of Canadian Society in an age recognizable and different from our own. Seminars will address the basis for Canada's involvement in the conflict, the Canadian military response and the problems and achievements of the CEF overseas and the impact of the war on Canada itself. [26L]

*Prerequisite:* HIS262Y/POL100Y

## HIS372Y5 The United States in the Twentieth Century

Major developments in the economic, social, political, and cultural life of the United States during the past century. [52L]

**HIS373H5 From the Gilded Age to the Jazz Age: The Emergence of Modern America, 1877-1929**

Examines the major social, political and cultural developments of American society from the end of reconstruction to the stock market crash of 1929. Specific topics to be covered include: the rise of mass culture; the growth of the corporation; labour politics; the rise of Jim Crow; the Populist revolt; Progressive Era reforms; WWI; women's suffrage; the Harlem Renaissance; and the "roaring" 1920s. [26L]

*Prerequisite:* A course in American history.

*Recommended Preparation:* HIS271Y

**HIS391H5 Modern Mexico**

(Formerly: Mexico: Independence to Revolution, 1810-1960)

This course will examine the origins and evolution of modern Mexico, from independence to present day. A crucial objective of the course will be to assess the multiple meanings of the "Revolution" (1910-1917) for understanding the economics, politics and cultures of contemporary Mexican society. [26L, 13T]

*Prerequisite:* HIS290Y/P.I.

**HIS392H5 American Foreign Policy in the Cold War**

A study of the United States in the international arena in the years from World War II through the 1980s. [26L]

*Exclusion:* HIS375H, 377Y

*Recommended Preparation:* HIS271Y

**HIS393H5 Slavery and the American South**

An examination of the role of slavery in the development of the American South from the early colonial period through the Civil War. Among the topics to be dealt with are: the origins of slavery, the emergence of a plantation economy, the rise of a slaveholding elite, the structure of the slave community, and the origins of the war. [26L]

*Exclusion:* HIS384Y

*Prerequisite:* HIS271Y

**HIS394H5 Race and Empire in Colonial South Asia**

This course investigates the language of power and race underwriting the colonial state structure in South Asia in the 19<sup>th</sup> and 20<sup>th</sup> centuries. It understands how colonial ethnographic, geographical, scientific, medical and legal discourses emerged as fundamental cultural, political and ideological tools in the creation and maintenance of the British Empire. [26L]

*Prerequisite:* One history course

*Corequisite:* HIS282Y

*Recommended Preparation:* HIS282Y/290Y/454H/481H

**HIS395Y5 Topics in History**

An in-depth examination of historical issues. Content in any given year depends on instructor. See *History Handbook*. [52L]

*Prerequisite:* Varies from year to year; consult Department.

**HIS402Y5 French Canada Since the Conquest**

(Formerly HIS314Y)

The development of the French-Canadian community under leaders such as Papineau, Laurier, Duplessis and Trudeau. The course traces Quebec's economic development, and the birth and evolution of its nationalism. Novels and films provide insight into this enduring culture, both in its home province and elsewhere in North America. [42S, 10L]

*Prerequisite:* HIS262Y, P.I.

**HIS415H5 The Reform Tradition in Canada**

An examination of reform in Canada in the nineteenth and twentieth centuries with special attention to public education, the social gospel, temperance and the development of the country's renowned "social safety net." International aid and peacekeeping efforts will be examined through a case study of our relations with China: immigration policies, the work of nineteenth century missionaries, the medical work of Norman Bethune and Canadian activities through the United Nations. [26S]

*Exclusion:* HIS319Y

*Prerequisite:* P.I.

*Recommended Preparation:* HIS262Y

## HIS416H5 Canada and the Second World War

(Formerly HIS390H)

A study of the social, political, military and economic experience of Canada during the War. Themes include the war production effort, the conscription and manpower crises, cultural change, diplomatic relations, the Holocaust and the atom bomb. [26S]

*Prerequisite:* HIS262Y, P.I.

## HIS420H5 Topics in Medieval History

Critical evaluation of selected legal, literary and narrative sources. Thematic content will vary from year to year, but there will be an emphasis on social history. [26S]

*Prerequisite:* P.I.

## HIS429H5 Studies in Irish History

A thematic analysis of some contentious issues in modern Irish history. Subjects to include the Act of Union, Catholic Emancipation, Ulsterism, the Great Famine, the Home Rule movement, and the Easter Uprising. [26S]

*Prerequisite:* P.I.

## HIS435Y5 The Viking Age

A seminar on the history of Europe from the eighth to the eleventh centuries with emphasis upon the Scandinavians and their relations with western European civilization. Readings will be in both primary and secondary sources. [52S]

*Exclusion:* HIS445Y

*Prerequisite:* P.I.

## HIS440H5 Photography and American Culture

Examines the history of photography in the United States, in relationship to society and culture. The course will follow three threads: the history of the medium, from 19<sup>th</sup> century daguerreotypes through 20<sup>th</sup> century fine art and documentary photography; the relationship between photography and American history, especially urbanization, the rise of commercial culture, and identity formation; and finally the history of the theory of photography, i.e., how photography has been understood as a medium. [26L]

*Prerequisite:* P.I.

*Recommended Preparation:* 1.0 credit in American history or 1.0 credit in modern art history.

## HIS441H5 Race and Gender in the Northern Colonies

This seminar addresses two major determinants in the history of colonial Canada and New England. It taps a rich primary and secondary literature on natives, blacks, métis and women. In their individual research projects, students may choose to focus on gender or on race. [26S]

*Prerequisite:* HIS262Y/271Y, P.I.

## HIS443Y5 War and Revolution in 19th Century Europe

The impact of war and revolution on European history from Napoleon to the First World War. Major topics will include the Napoleonic Empire and the Vienna Settlement, the Revolutions of 1830, the Revolutions of 1848, the Crimean War, the wars of Italian and German unification, the Russo-Japanese War and the Russian Revolution of 1905, the Balkan Wars, and the First World War. [52S]

*Prerequisite:* P.I.

## HIS452H5 The Great Depression in Canada

This course explores the social, economic and political crisis in the 1930s. It examines social welfare policies, cultural developments, themes of regionalism and federalism and political change. [26S]

*Prerequisite:* A university-level course in modern Canadian history, P.I.

**HIS454H5 Race, Gender and Nation in Modern Latin America**

This seminar examines the interconnected histories of race, gender and nation in Latin America. It studies the significance of race/racism and gender/patriarchy in the construction of national societies in Latin America during the nineteenth and twentieth centuries. Subtopics include: slavery and Indian servitude; acculturation and eugenics; immigration and urbanization; machismo and mariismo; and current Indian and women's movements. [26S]

*Prerequisite:* HIS290Y/P.I.

**HIS461H5 History of Upper Canada**

This course surveys Ontario before Confederation. What were the bases of the region's prosperity? Topics include backwoods life, gender roles and the rise of schooling. Also of interest are political topics: Loyalism, the Family Compact, the 1837 Rebellion, and Upper Canada's key role in shaping Confederation. Each student studies biographies and sources of a key Upper Canadian figure. [26S]

*Exclusion:* HIS365Y, 385H

*Prerequisite:* HIS262Y, P.I.

**HIS475Y5 The French Revolution**

A topical survey of the French Revolution dealing with the uprising in France and its repercussions elsewhere by examining such subjects as its causes, its effect on nations, classes and gender, and its relation to nationalism, socialism and democracy. [52S]

*Exclusion:* HIS347Y

*Prerequisite:* P.I.

*Recommended Preparation:* A course in European history

**HIS479Y5 Cold War America**

An examination of significant political, economic, social and intellectual developments, including Cold War foreign policies, economic and social reforms, McCarthyism, the Civil Rights movement, women's liberation, the "counter-culture," and the Indochina Wars. [52S]

*Prerequisite:* P.I.

**HIS484Y5 Revolution and Reaction in Latin America**

A course focusing on politics and revolutionary movements in modern Latin America and related areas (e.g., southern Europe); emphasis will be placed on three or four particular countries, to be studied on a comparative basis. The course will also attempt to introduce possible approaches to history as a social science. [52S]

*Prerequisite:* P.I.

**HIS486Y5 Political Thought in the Reformation**

The political thought of the Protestant reformers and pamphleteers of the 16th century is examined, with emphasis on the issues of Church/state relations and religious toleration. [52S]

*Exclusion:* HIS486H

*Prerequisite:* A course in medieval or early modern European history, P.I.

**HIS487H5 Canadian Social History**

The evolution of Canada from an agrarian to an industrial society. Themes include migration and ethnicity, urbanization and industrialization, violence and social order, social stratification, education and family. [26S]

*Prerequisite:* P.I.

*Recommended Preparation:* HIS262Y

**HIS495Y5 Topics in History**

An in-depth examination of historical issues. Content in any given year depends on instructor. See *History Handbook* or History web site for more details. [52S]

*Recommended Preparation:* Varies from year to year; consult Department.

**HIS496Y5 International Relations, 1870-1945**

The international relations of the European powers at their zenith and in decline. The interaction of the European powers is studied from the creation of the Second Reich to the origins of the First World War, the Versailles settlement, the inter-war "twenty year crisis" through the Second World War. The economic and social framework will be examined as well as political conflicts. [52S]

*Prerequisite:* P.I.

**HIS497Y5 Independent Reading**

An independent reading/research project on an area of interest to a student, supervised by a member of staff. This course is primarily for students enrolled in a History Specialist, Joint Specialist or Major program. Students must find an appropriate supervisor, receive approval for the project, and submit the Registration Form to the Discipline Representative. Only one full credit Independent Reading course is permitted.

*Prerequisite:* P.I.

**HIS499H5 Independent Reading**

An independent reading/research project on an area of interest to a student, supervised by a member of staff. This course is primarily for students enrolled in a History Specialist, Joint Specialist or Major program. Students must find an appropriate supervisor, receive approval for the project, and submit the Registration Form to the Discipline Representative. Only one full credit Independent Reading course is permitted.

*Prerequisite:* P.I.

**Italian***Professors:*

- S. Bancheri, B.A., M.A., Ph.D.  
J. Campana, B.A., M.A., Ph.D.  
G. De Angelis, Dott. Lingue, M.A., Ph.D.  
G. Katz, B.A., M.A., Ph.D.  
M. Lettieri, B.A., M.A., Ph.D.  
L.T. McCormick, B.A., A.M., Ph.D.  
G. Pugliese, B.A., M.A., Ph.D.

*Adjunct Professors:*

- C. Besnard (York University)  
A. Mollica (Brock University)

*Associate Chair and*

*Faculty Advisor:* Professor S. Bancheri  
Room 231, North Bldg.  
(905) 569-4328

The Italian program at UTM is designed to provide a comprehensive study of the many facets of Italy, a country whose culture continues to be a significant force in the shaping of Western civilization. Literature and cinema courses are organized around major figures, movements or genres, as well as Italian life and civilization. Language is studied from all points of view—practical, stylistic, philological and historical—at all levels of instruction. In Canada, the strong presence of large Italian communities provides a social, intellectual and practical incentive for the study of Italian.

Students are free to design for themselves the program of study best suited to their interests and needs, and they can choose from available courses at UTM and at the St. George campus. There are conditions, however, which must be satisfied (a) for specialization in Italian alone or in Language Teaching and Learning; (b) for a major in Italian alone or Italian and French; (c) for a major in Language Teaching and Learning in Italian alone or Italian and French; (d) for a minor in Italian alone or in Cinema Studies; (e) for a specialist in International Affairs, which requires a language component.

Knowledge of another language and culture is regarded favourably by other disciplines (i.e. Art History, Art and Art History) and is frequently required for graduate-level studies. Graduates in Italian

are in demand and will continue to be. UTM's Italian graduates have moved on to advanced studies and to careers in business, journalism, teaching, translation, transportation, foreign affairs, government, social services, trade, law, and other fields where skills in Italian are a necessity.

In the case of uncertainty with regard to the program of study, course content, graduate studies requirements, or any related matter, students are strongly advised to consult the Associate Chair for Italian at UTM.

A fuller description of the Italian program is available in the *Italian Handbook*, which is produced in the spring. It is available from the Italian Department Secretary, Room 227, North Bldg., Telephone: (905) 828-3747. It is an essential supplement to the Calendar and students are urged to consult it.

**Courses offered every year:** ITA100Y, 200Y, 321Y, 350Y, JFI225Y

#### **ITA100Y5 Italian for Beginners**

An introduction to the Italian language for students of non-Italian linguistic background. Essentials of grammar, oral practice, language laboratory, translation. [52L, 26P]

*Exclusion:* Previous schooling in Italian

#### **ITA200Y5 Continuing Italian**

This course consists of a thorough review of grammatical structures and is designed to improve the students' self-expressiveness in Italian. Selections from contemporary authors and passages dealing with present-day issues are used as a basis for discussion in Italian. For students whose background in Italian is solely academic. [52L, 26P]

*Prerequisite:* OAC Italian or equivalent/ITA100Y/P.I.

#### **ITA220Y5 Forms of Modern Italian Literature**

An introduction to twentieth-century Italian literature through a study of representative "novelle," shorter works of fiction, plays and poetry. Selections will include writings by Moravia, Calvino and others. [52L]

**This course will be offered in Italian, but written work can be done in English. This course counts only towards an Italian Minor or as an elective.**

*Exclusion:* ITA221Y

*Prerequisite:* OAC Italian or equivalent/ITA100Y

#### **ITA221Y5 Forms of Modern Italian Literature**

An introduction to twentieth-century Italian literature through a study of representative "novelle," shorter works of fiction, plays and poetry. Selections will include writings by Moravia, Calvino and others. [52L]

*Exclusion:* ITA220Y

*Prerequisite:* OAC Italian or equivalent/ITA100Y

*Recommended Preparation:* Good knowledge of Italian.

#### **JFI225Y5 Teaching and Learning a Second/Foreign Language**

In this course, students will learn how language teaching methods have evolved since the 1960s. Different teaching approaches (behaviourist, audio-visual, communicative, cognitive and humanistic) will be examined with special emphasis on the teaching of the four skills (reading, writing, listening, speaking) and culture, on the roles of the teacher and the learner in the classroom. [26L, 26T]

**This course is taught in English and is open to students from other disciplines. Students enrolled in this course who submit all written work in Italian may petition the Department for credit towards a Specialist or Major in Italian.**

*Prerequisite:* For students doing the work in English, 4.0 credits. For those doing work in French and/or Italian: FRE180Y and/or ITA200Y (or equivalent) or Permission of the Department.

## ITA227Y5 Twentieth-Century Italian Women Writers

(Formerly ITA232H)

(Offered in English)

This course examines the role of women in the family and in society and their search for sexual identity, as portrayed in the works of several Italian women writers (Deledda, Aleramo, Ginzburg, Banti, Morante, Maraini, Morazzoni and others). [52L]

**The students can do their work in English. This course counts only towards an Italian Minor or as an elective.**

*Exclusion:* ITA228Y, 232H, 233H

## ITA228Y5 Twentieth Century Italian Women Writers

(Formerly ITA233H)

(Offered in English)

This course examines the role of women in the family and in society and their search for sexual identity, as portrayed in the works of several Italian women writers (Deledda, Aleramo, Ginzburg, Banti, Morante, Maraini, Morazzoni and others). [52L]

**The students will have to do the written work in Italian and read some of the books in Italian. This course will count towards any Italian program.**

*Exclusion:* ITA227Y, 232H, 233H

*Prerequisite:* ITA200Y

## ITA229Y5 Italian Literature Through the Ages

A survey of the shorter forms of Italian literature from the Middle Ages to the beginning of the twentieth century. Emphasis will be given to poems and "novelle", but theoretical pieces and short plays of recognized literary significance will also be examined. [52L]

**This course will be taught in English, but the texts used will be in Italian. The students can do their work in English. This course will count only towards an Italian Minor or as an elective.**

*Exclusion:* ITA230Y

*Prerequisite:* OAC Italian or equivalent/ITA100Y

## ITA230Y5 Italian Literature Through the Ages

A survey of the shorter forms of Italian literature from the Middle Ages to the beginning of the twentieth century. Emphasis will be given to poems and "novelle," but theoretical pieces and short plays of recognized literary significance will also be examined. [52L]

**This course will be taught in English, but the texts will be in Italian. The students will do their work in Italian. This course will count towards any Italian program.**

*Exclusion:* ITA229Y

*Prerequisite:* OAC Italian or equivalent/ITA100Y

## ITA234Y5 Topics in Italian Civilization (Offered in English)

Various aspects of modern Italian civilization such as fascism, the Resistance, mafia, industrialization, language and mass-media, immigration, the generation of '68, terrorism, women's liberation, religion, and political ideologies will be discussed through a selection of short stories, novels, sociological and historical documents, articles from newspapers and magazines. [52L]

**This course counts only towards an Italian Minor or as an elective.**

*Exclusion:* ITA235Y

## ITA235Y5 Topics in Italian Civilization (Offered in English)

Various aspects of modern Italian civilization such as fascism, the Resistance, mafia, industrialization, language and mass-media, immigration, the generation of '68, terrorism, women's liberation, religion and political ideologies will be discussed through a selection of short stories, novels, sociological and historical documents, articles from newspapers and magazines. [52L]

**The students will have to do the written work in Italian. This course will count towards any Italian program.**

*Exclusion:* ITA234Y

*Prerequisite:* OAC Italian or equivalent/ITA100Y

**ITA242Y5 Modern Italian Cinema  
(Offered in English)**

An analysis of some of the most significant works of modern Italian film makers. Analysis and discussion will take place in English. [52L, 52P]

**This course counts only towards an Italian Minor or as an elective.**

*Exclusion:* ITA240Y/243Y

**ITA243Y5 Modern Italian Cinema  
(Offered in English)**

An analysis of some of the most significant works of modern Italian film makers.

Analysis and discussion will take place in English. [52L, 52P]

**The students will have to do the written work in Italian. This course will count towards any Italian program.**

*Exclusion:* ITA240Y/242Y

**Prerequisite:** OAC Italian or equivalent/ITA100Y

**ITA306H5 Modern Italian Literature and Cinema****(Offered in English)**

A study of various novels, short stories and plays and of their adaptation into film.

Among the authors to be studied are Verga, Moravia, Bassani and De Filippo and among the film directors Visconti, Scola, Bertolucci and De Sica. [26L] *Note: Extra hours will be scheduled for viewing of films.*

**This course will count only towards an Italian Minor or an elective.**

*Exclusion:* ITA307H

**ITA307H5 Modern Italian Literature and Cinema****(Offered in English)**

A study of various novels, short stories and plays and of their adaptation into film.

Among the authors to be studied are Verga, Moravia, Bassani and De Filippo and among the film directors Visconti, Scola, Bertolucci and De Sica. [26L] *Note: Extra hours will be scheduled for viewing of films.*

**The students will have to do the written work in Italian and read some of the books in Italian. This course will count towards any Italian program.**

*Exclusion:* ITA306H

**Prerequisite:** ITA200Y

**ITA312Y5 Italian Comic Theatre: Text and Performance**

A study of representative comic plays from the Middle Ages to Goldoni, with a consideration of staging and acting techniques mainly through the production of a specific comedy. [26L, 52P, 26T]

**This course will be offered in Italian, but written work could be done in English.**

**This course counts only towards an Italian Minor or as an elective.**

*Exclusion:* ITA313Y

**Recommended Preparation:** A good knowledge of Italian

**ITA313Y5 Italian Comic Theatre: Text and Performance**

A study of representative comic plays from the Middle Ages to Goldoni, with a consideration of staging and acting techniques mainly through the production of a specific comedy. [26L, 52P, 26T]

*Exclusion:* ITA312Y

**Prerequisite:** ITA200Y/P.I.

**Recommended Preparation:** A good knowledge of Italian.

**ITA314Y5 Italian Comedy and Performance**

A study of comic plays from the Nineteenth and Twentieth Centuries with a consideration of staging and acting techniques mainly through the production of a specific comedy. [26L, 52P, 26T]

**This course will be offered in Italian, but written work could be done in English.**

**This course counts only towards an Italian Minor or as an elective.**

*Exclusion:* ITA315Y

**Recommended Preparation:** A good knowledge of Italian

**ITA315Y5 Italian Comedy and Performance**

A study of comic plays from the Nineteenth and Twentieth Centuries with a consideration of staging and acting techniques mainly through the production of a specific comedy. [26L, 52P, 26T]

*Exclusion:* ITA314Y

**Prerequisite:** ITA200Y/P.I.

**Recommended Preparation:** A good knowledge of Italian.

## ITA317H5 Women and Love in the Middle Ages and the Renaissance (Offered in English)

This course examines the way the beloved woman is perceived in the Middle Ages and the Renaissance. It ranges from the idealized portrait of Dante's Beatrice, to the ambiguous character of Petrarch's Laura, to the many enticing women described by Boccaccio, and others. [26L]

**This course counts only towards an Italian Minor or an elective.**

*Exclusion:* ITA318H, 421H, 427H, 421Y(G)

*Prerequisite:* ITA200Y

## ITA318H5 Women and Love in the Middle Ages and the Renaissance (Offered in English)

This course examines the way the beloved woman is perceived in the Middle Ages and the Renaissance. It ranges from the idealized portrait of Dante's Beatrice, to the ambiguous character of Petrarch's Laura to the many enticing women described by Boccaccio. [26L]

**The students will have to do their written work in Italian and read some of the works in Italian. This course will count towards any Italian program.**

*Exclusion:* ITA317H, 421H, 427H, 421Y(G)

*Prerequisite:* ITA200Y

## ITA321Y5 Dante's Divina Commedia

An introduction to the work and thought of Dante, with special emphasis on the Inferno and Purgatorio. [52L]

*Prerequisite:* ITA200Y

## ITA342Y5 Post War Italian Cinema (Offered in English)

An examination of the different trends in Italian cinema of post war Italy. [52L, 52P]

**This course counts only towards an Italian Minor or as an elective.**

*Exclusion:* ITA343Y

## ITA343Y5 Post War Italian Cinema (Offered in English)

An examination of the different trends in Italian cinema of post war Italy. [52L, 52P] The students will have to do the written work in Italian. This course will count towards any Italian program.

*Exclusion:* ITA342Y

*Prerequisite:* ITA200Y

## ITA350Y5 Language Practice

Intermediate - advanced level language course designed to give the student oral and written proficiency. Selected readings on questions of topical interest, discussions, compositions. [52L, 26P]

*Prerequisite:* ITA200Y

## ITA370Y5 Power and Success in the Renaissance

Concepts of power and strategies for success in Renaissance treatises including Machiavelli's *Il principe* and Castiglione's *Il libro del cortegiano*. Politics, art and writings as instruments of power in the lives of two "universal" men (Lorenzo il Magnifico and Michelangelo) and a female intellectual (Gaspara Stampa). [52L]

*Exclusion:* ITA324Y

*Prerequisite:* ITA200Y

## ITA371Y5 Advanced Translation

Techniques and theories of translation, using modern texts containing a variety of linguistic codes. Some simultaneous translation. [52L, 26P]

*Prerequisite:* ITA350Y/P.I.

## ITA372Y5 Pirandello and Modern Italian Playwrights

The problem of conflicting realities and of the definition of the personality in the plays of Pirandello. Works by Betti, Fabbri, De Filippo and Fo will also be read. [52L]

*Prerequisite:* ITA200Y

**ITA374H5 Second Language Teaching****Methodology****(Offered in English)**

This course connects Second Language Acquisition theory and research to teaching practice. Students will gain hands-on experience in the development and evaluation of Italian second language teaching materials for the communicative classroom environment. Special emphasis will be placed on the teaching of the four skills (speaking, reading, listening and writing) and grammar instruction. **This course counts only towards an Italian Minor or as an elective.** [13L, 13P]

*Exclusion:* ITA375H

*Prerequisite:* ITA200Y or equivalent/ permission of the Department

**ITA375H5 Second Language Teaching****Methodology****(Offered in English)**

This course connects Second Language Acquisition theory and research to teaching practice. Students will gain hands-on experience in the development and evaluation of Italian second language teaching materials for the communicative classroom environment. Special emphasis will be placed on the teaching of the four skills (speaking, reading, listening, and writing) and grammar instruction.

**The students will have to do the written work in Italian. This course counts towards any Italian program.** [13L, 13P]

*Exclusion:* ITA374H

*Prerequisite:* ITA200Y or equivalent/ permission of the Department

**JFI388Y5 Testing and Evaluation of Multimedia Language Resources**

This course will examine the resources (stand alone software and Web) for Teaching and Learning Second Languages, and will assess their pedagogical effectiveness. [52P]

**This course will be taught in English and is open to students in other disciplines.**

Students enrolled in this course who submit all written work in Italian may petition the Department for credit towards a Specialist or Major in Italian.

*Prerequisite:* JFI225Y

**ITA390Y5 Modern Humanity in Crisis**

(Formerly: 20<sup>th</sup> Century Novel)

Masterpieces of modern Italian fiction analyzed against the background of modern-day Italy. Works to be read include novels by Svevo, Vittorini, Silone, Moravia, Pavese. [52L]

*Prerequisite:* ITA200Y

**ITA396H5 Computer Assisted Language and Literature Teaching in Italian**

This course focuses on the computer as a tool to enhance the teaching and learning of Italian. Participants will learn to incorporate computer technology in the classroom, survey and experiment with available software, learn to create new courseware, including interactive multimedia programs. Internet used as a resource. [26P]

*Prerequisite:* ITA200Y or equivalent/ permission of the Department

**ITA398Y5 The Individual and Society in 19<sup>th</sup> Century Italian Literature**

Examination of personal and social themes in the poetry of the Romantics, especially Leopardi, and in the novels of Manzoni, Verga and others. [52L]

**This course will be offered in Italian, but written work can be done in English. This course counts only towards an Italian Minor or as an elective.**

*Exclusion:* ITA395H, 397H, 399Y

*Prerequisite:* ITA200Y

**ITA399Y5 The Individual and Society in 19<sup>th</sup> Century Italian Literature**

Examination of personal and social themes in the poetry of the Romantics, especially Leopardi, and in the novels of Manzoni, Verga and others. [52L]

**This course will be offered in Italian and the students will do their work in Italian. This course will count towards any Italian program.**

*Exclusion:* ITA395H, 397H, 398Y

*Prerequisite:* ITA200Y

**ITA434H5 Literature of Anxiety: From the Middle Ages to 18<sup>th</sup> Century**

A study of the major poetic currents and poets from the Middle Ages to 18<sup>th</sup> century. [26L]

*Prerequisite:* ITA350Y

## ITA435H5 Literature of Anxiety: 19<sup>th</sup>- 20<sup>th</sup> Century Italian Poetry

A study of the major poetic currents and poets of the last century from the Scapigliati to Pasolini and beyond. [26L]

*Prerequisite:* ITA350Y

## ITA436Y5 The 18th Century in Italy

An investigation of the intellectual trends and literary forms in Italy from the pre-enlightenment to Romanticism. Readings from the works of Vico, Muratori, Gravina, Metastasio, Rolli, Parini, Verri, Beccaria, Goldoni, Alfieri and others. [52L]

*Prerequisite:* ITA200Y

## ITA437H5 Topics in the History of the Italian Language

The linguistic transition from Latin to Italian, the "Questione della lingua," developments in the 18th and 19th centuries, contemporary trends. Reading and linguistic analysis of representative texts. [26L]

*Prerequisite:* ITA200Y

*Recommended Preparation:* Knowledge of Medieval/Renaissance and modern Italian literary culture.

## ITA450Y5 Intensive Language Practice

This course combines the study and intensive examination of expressive strategies in Italian with the purpose of honing both the oral and written skills beyond the intermediate-advanced level.

[26L, 26S, 26P]

*Prerequisite:* ITA350Y

## JFI488H5 Principles and Strategies for Second Languages Course Design

This course will conduct a critical appraisal of online course materials, and formulate appropriate pedagogical strategies for their exploitation. [26P]

**This course will be taught in English and is open to students in other disciplines. Students enrolled in this course who submit all written work in Italian may petition the Department for credit towards a Specialist or Major in Italian.**

*Prerequisite:* JFI225Y

*Recommended Preparation:* JFI388Y

For the following courses, the student should obtain the written permission of the Associate Chair in Italian and of the instructor teaching the course.

## ITA490Y5 Independent Italian Theatre Studies I

A scholarly project, supervised by a member of the Italian department, on an aspect or figure of Italian theatre of the nineteenth or twentieth centuries. Performing in a play is also a requirement. [26L, 52P, 26T]

*Exclusion:* ITA495Y in the same year

*Prerequisite:* ITA314Y/315Y/ P.I.

## ITA491Y5 Independent Studies in Italian

A project supervised by a member of the Italian Department on a topic of Italian language, literature or linguistics. [52T]

*Prerequisite:* ITA350Y or equivalent

## ITA492H5 Independent Studies in Italian

A project supervised by a member of the Italian Department on a topic of Italian language, literature or linguistics. [26T]

*Prerequisite:* ITA350Y or equivalent

## ITA495Y5 Independent Italian Theatre Studies II

A scholarly project, supervised by a member of the Italian department, on an aspect or figure of Italian theatre from its origins to Goldoni. Performing in a play is also a requirement.

*Exclusion:* ITA490Y in the same year

*Prerequisite:* ITA312Y/313Y/P.I.

**Joint Courses**

**JAL253H5 Language and Society**  
(For description see Anthropology courses)

**JAL355H5 Language and Gender**  
(For description see Anthropology courses)

**JBC372H5 Molecular Biology**  
(For description see Biology courses)

**JBC472H5 Seminars in Biotechnology**  
(For description see Biology courses)

**JCP321H5 Introduction to Quantum Mechanics**  
(For description see Chemistry courses)

**JCP322H5 Introduction to Statistical Mechanics**  
(For description see Chemistry courses)

**JFI225Y5 Teaching and Learning a Second/Foreign Language**  
(For description see French or Italian courses)

**JFI388Y5 Testing and Evaluation of Multimedia Language Resources**  
(For description see French or Italian courses)

**JFI488H5 Principles and Strategies for Second Languages Course Design**  
(For description see French or Italian courses)

**Latin**

**LAT100Y5 Introductory Latin**  
(See Classics)  
Essentials of the Latin language and introduction to Latin literature. [104S]  
*Exclusion:* LAT101H/102H  
Not offered in 2003-2004.

# Linguistics

## Linguistics

*Faculty Advisor:* Dean, Humanities  
(905) 828-5218

The aim of Linguistics is to develop an understanding of how all languages work, and of how languages use disparate means for the same effects. The theme is the unity and the variety of human language. Such a theme subsumes many variations, including grammatical theory and its application to data, language divergence and convergence in space and time, the sociocultural stratification of linguistic systems, normal and pathological language behaviour and language learning.

Undergraduate Linguistics is a valuable component of a liberal education, especially in a multi-lingual country such as Canada. It is also valuable as pre-professional training for people interested in teaching English, French or other languages, in areas of rehabilitative medicine such as audiology or speech therapy, in special education, in work with native peoples or with immigrant groups in our society, in religious and missionary work, or in academic disciplines such as Psychology, Philosophy, literature and language studies, where the contribution of linguistics is increasingly recognized as important.

Students interested in linguistics should consider the following: CLA201H, ENG266H, 367Y; FRE272Y, 273Y, 376H, 378H; JFI225Y, PHL245H; PSY312H, 374H; SOC309Y.

### **LIN100Y5 Introduction to General Linguistics**

Lectures on fundamental principles with illustrations from English and from a broad spectrum of other languages. Practice in elementary analytic techniques. [52L, 26T]

### **LIN200H5 Introduction to Language**

A general-interest course on language. The structure of language; the social and psychological aspects of language; how language changes over time, with special reference to the history of English. Also origin of language, writing systems, and language acquisition. [26L, 13T]

*Exclusion:* LIN100Y

### **LIN203H5 English Words through Time and Space**

(Formerly LIN202Y)

An analysis of English words, the history of their development and the variation in their use across the English-speaking world.

Topics include the history and structure of words, the relation between sound and spelling, dialect variation and the development of dictionaries. [26L]

*Exclusion:* LIN202Y

### **LIN204H5 English Grammar**

How the English language works: students analyze a wide variety of English grammatical structures and learn how they vary across dialects and change through time. [26L]

*Exclusion:* LIN202Y

### **LIN228H5 Phonetics**

Investigation of the sounds most commonly used in languages from an articulatory and acoustic point of view, with practice in their recognition and production. [26L, 13T]

*Recommended Preparation:* LIN100Y/  
200H

### **LIN299Y5 Research Opportunity Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

### **JAL253H5 Language and Society**

(For description see Anthropology courses.)

### **JAL355H5 Language and Gender**

(For description see Anthropology courses.)

### **LIN372H5 Introduction to Cognitive Linguistics**

Articulation of speech sounds, morphology, syntax, structure of the lexicon, comprehension of speech in noise, slips of the tongue, choice of vocabulary and sentence form when speaking. [26L]

*Prerequisite:* LIN200H

## Management

### Professors:

T. Åstebro, M.Sc., L.T., Ph.D.  
V. Aivazian, B.S., M.A., Ph.D.  
L.J. Brooks, B.Com., M.B.A., F.C.A.  
H.P. Gunz, B.Sc., D.Phil, Ph.D., Dp.B.A.  
R.M. Jalland, B.A., Ph.D.  
J. Kitunen, B.B.M., C.A.  
L. Kramer, B.B.A., Ph.D.  
Y. Li, B.Sc., M.B.A., Ph.D.  
S. Meza, I.E., M.B.A., M. Phil  
C. Reed, B.A., M.B.A., C.M.A.  
M. Schneider, B.Com., L.L.B., M.B.A.,  
C.F.P., C.A.  
S.M. Toh, B.B.S., Ph.D.  
A.K.P. Wensley, M.A., M.A., M.B.A.,  
Ph.D.  
J.M. Weber B.A., M.A., M.B.A., Ph.D.  
I. Wiecek, B.Com., C.A.

All faculty offices are located on the 2<sup>nd</sup> floor, Kaneff Centre.

### Associate Chair:

Professor L.J. Brooks

### Deputy Associate Chair:

Professor H.P. Gunz

### Program Directors:

Commerce Programs – L.J. Brooks  
Management Major Program – R.M. Jalland

### Student Advisor:

Mary Wellman  
Room 215, Kaneff Centre  
(905) 828-5309

### Management Programs Administrator:

Ross McCallum  
Room 207, Kaneff Centre  
(905) 828-3914

### Departmental Secretary:

TBA  
Room 207, Kaneff Centre  
(905) 828-3914

### Programs

There are two distinct undergraduate program streams in Management at the University of Toronto at Mississauga; the Commerce Programs and the Management Major Program.

#### a) Commerce Programs (B.Com. and B.A. (Major))

The commerce programs combine economics and the various sub-disciplines of business and government management enabling students to develop analytical skills and gain knowledge of institutions. This background is useful for solving problems and making decisions in business and government environments.

Commerce students have the opportunity to participate in an international exchange program during 3<sup>rd</sup> year. This is an excellent opportunity for students to enhance their university experience through living and studying in a new and different environment. Exchange programs give commerce students valuable international experience necessary in today's global marketplace.

Commerce graduates frequently become professional accountants, economists, actuaries, financial analysts, marketing analysts, managers of firms and government, or proprietors of small businesses. Some commerce students choose to do post-graduate studies; law schools and MBA programs have been favoured by recent graduates.

#### b) Management Major Program

This leads to either an Honours B.A. or Honours B.Sc. degree, depending on your second discipline (which must be a Major program). For example, Chemistry and Management will prepare you for a career in the chemical industry; English and Management for publishing, Psychology and Management or Sociology and Management for a wide range of careers in business or commerce, and so on.

This program prepares you to become effective members of organizations so that you will be able to make full use of your science, social science or humanities education. The program's courses develop an understanding of organizations and managerial functions. Drawing on a balanced offering of rigorous intellectual frameworks from the social sciences, they introduce you to the nature and working of organizations. Most of the courses in the Management Major program are unique to the program and have been specifically designed as part of an integrated package.

# Management

The Management Major program has been designed to provide the student with a comprehensive understanding of all aspects of management and an integrated set of management skills.

**Enrolment in Commerce and Management programs, and all 200+ level Management courses, is restricted. 100 level Management courses are available to any student.**

## "MGD" Management Courses

**"MGD" courses are available to students in the Digital Enterprise Management (CCIT) program and, if space is available, to Commerce and Management program students.**

### **MGD327H5 Advanced Legal Issues**

This course will build on the foundations established in CCT206H. Issues relating to the protection of digital rights, taxation, privacy, jurisdiction and regulation will be examined in detail through the use of recent legal scholarship and evolving case law.

[26L, 13T]

*Exclusion:* JGM291H; MGM290H; MGT290H, 393H, 394H, 423H, 429H

*Prerequisite:* CCT206H (or equivalent); MGM101H (or equivalent)

### **MGD328H5 Project Management**

Approaches to the management of complex technical projects will be investigated.

Topics include project estimating, costing and evaluation, organizing and managing project teams, quantitative methods for project planning and scheduling, introduction to computer-based project management tools. The course may involve an applied field project. [26L, 13T]

*Prerequisite:* CCT324H (or equivalent), 325H (or equivalent); MGM101H (or equivalent), or Permission of Instructor

### **MGD415H5 E-Business Strategies**

Electronic business, the extensive use of the Web and the Internet, is radically changing existing businesses. New Internet businesses are also being created at an unprecedented rate. New business models, e-business technologies, payment mechanisms, legal and regulatory issues (e.g., intellectual property rights, privacy and security) and the economics of e-business will be investigated from a research and practical perspective.

[26L, 13T]

*Exclusion:* MGT415H

*Prerequisite:* CCT325H (or equivalent); MGM101H (or equivalent)

### **MGD420H5 Global Digital Industries**

The nature of digital industries will be investigated. The structure and dynamics of various industries, and how they interact with each other, will be emphasized. Topics covered include industries related to traditional media, entertainment, software and other new media. A global perspective will be adopted in this course. [26L, 13T]

*Prerequisite:* CCT321H (or equivalent), 322H (or equivalent), 324H (or equivalent); MGM101H (or equivalent), or Permission of Instructor

### **MGD421H5 Technological Entrepreneurship**

This course considers the role of entrepreneurship in society and the process of initiating and developing a new business venture. Topics include entrepreneurial behaviour, characteristics of entrepreneurial teams, evaluation of new ventures, correlates of success, the business plan, growth strategies, venture capital and financing.

[26L, 13T]

*Prerequisite:* CCT321H (or equivalent),

322H (or equivalent), 324H (or equivalent); MGM101H (or equivalent), or Permission of Instructor

## **MGD422H5 Management of Technological Innovation**

Technological innovation involves the application of knowledge to create new products, services and organizational processes. This course examines technological innovation from an organizational and strategic perspective. Topics include organizational conditions for innovation, development of organizational knowledge and capabilities, new product development, technological change and evolution, integration of R & D and firm strategy, technology alliances and joint-ventures. [26L, 13T]

*Prerequisite:* CCT321H (or equivalent), 322H (or equivalent), 324H (or equivalent); MGM101H (or equivalent), or Permission of Instructor

## **MGD423H5 Technology in Organizations**

This course examines the impact and role of technology in organizations, including job design and the nature of work, communication and social interaction in organizations, and organizational structure. Theoretical approaches draw from socio-technical systems theory, actor-network theory, human computer interaction, and organizational theory, among others.

[26L, 13T]

*Prerequisite:* CCT321H (or equivalent), CCT322H (or equivalent), 324H, 325H (or equivalent); MGM101H (or equivalent), or Permission of Instructor

## **MGD425H5 Macroeconomics and the Knowledge Economy**

This course will introduce basic macroeconomics concepts such as national income and its determination, monetary and fiscal policy, comparative advantage, international trade and foreign exchange fluctuations. Issues relating to macroeconomic aspects of the knowledge economy will also be addressed. [26L, 13T]

*Exclusion:* ECO100Y

*Prerequisite:* CCT319H (or equivalent), 321H (or equivalent), 322H (or equivalent), 324H (or equivalent); MGM101H (or equivalent)

## **MGD426H5 Risk Management for Digital Industries**

This course will address the identification and management of risks that are specific to digital industries such as network penetration, transaction processing interruption and flow disruption, provision of audit and backup facilities. The course will also integrate technical security issues along with managerial and legal considerations. [26L, 13T]

*Prerequisite:* CCT319H (or equivalent), 321H (or equivalent), 322H (or equivalent), 324H (or equivalent); MGM101H (or equivalent), or Permission of Instructor

## **"MGM" Management Courses**

**"MGM" Management courses at the 200+ level are available only to students in the Management Major program.**

### **MGM101H5 Introduction to Management Functions**

This course shows how the principal management disciplines provide analytical tools for understanding organizations and their management, how the disciplines interrelate and how they underpin the activities of organizations. **Not open to students enrolled in the 3<sup>rd</sup> or 4<sup>th</sup> year of the Commerce Major or Specialist program.**

[26L]

*Exclusion:* COM110H(G), MGM100Y, MGT100Y

### **MGM102H5 Management in a Changing Environment**

This course introduces you to the environment in which managers operate, and to the managerial role. It explores the Canadian business system, the economic, technological and social trends which are bringing about change in the system, and the basic principles of managing in this environment. **Not open to students enrolled in the 3<sup>rd</sup> or 4<sup>th</sup> year of the Commerce Major or Specialist program.**

[26L]

*Exclusion:* MGM100Y, MGT100Y

*Prerequisite:* MGM101H(63%)

## MGM200H5 Analysis for Decision and Control

Students will be introduced to a variety of techniques for analyzing data for the purposes of decision and control. Topics covered include mathematical modelling, decision analysis and operations management. [26L]

*Exclusion:* MGT200H

*Prerequisite:* MGM(101H, 102H)/100Y/  
MGT100Y

## MGM221H5 Accounting Fundamentals I

The objective of this course is to expose students to the fundamentals of accounting and financial reporting from a user perspective. Students will learn to prepare, read and understand financial statements as well as to analyze them for information content. [26L]

*Exclusion:* MGM220Y, MGT220Y, 220H,  
222H

*Prerequisite:* MGM(101H, 102H)/100Y/  
MGT100Y

*Corequisite:* MGM200H

## MGM222H5 Accounting Fundamentals II

Management accounting reports aid the decision-making process by providing management with pertinent financial, as well as nonfinancial, information, such as product service costing information, information to assist in planning and controlling operations, and special reports and analyses to support management's decisions. This course will provide you with the tools to understand and use management accounting information for decision making, planning and control.

[26L]

*Exclusion:* MGM220Y, MGT220Y, 220H,  
222H

*Prerequisite:* MGM(101H, 102H)/100Y/  
MGT100Y, MGM221H

## MGM230H5 Finance

This course analyzes the financial decision-making processes of individuals and firms. It emphasizes the institutional aspects of finance, focusing on the characteristics of financial instruments and institutions in capital markets. [26L]

*Exclusion:* MGT230H, 331Y(G), 337Y

*Prerequisite:* MGM(101H, 102H)/100Y/  
MGT100Y, MGM200H

## MGM252H5 Principles of Marketing

An introduction to the basic concepts of market definition, consumer behaviour, and the principal marketing functions: product line development, pricing, distribution, promotion, salesforce management, advertising, research, and planning. [26L]

*Exclusion:* MGT252H, 352H

## MGM290H5 Regulatory Issues

This course provides an overview of legal and taxation systems as they affect the structure and management of organizations.

[26L]

*Exclusion:* MGT290H, 393H, 394H, 423H,  
429H; JGM291H

*Prerequisite:* MGM(101H, 102H)/100Y/  
MGT100Y, MGM200H

## MGM299Y5 Research Opportunity

### Program

Credit course for supervised participation in faculty research project. See page 98 for details.

## MGM300H5 Organizational Behaviour

(Formerly: MGM362H)

Using concepts from psychology and the social sciences to understand processes of managing and organizing, the course will explore life in organizations, the analytical tools that can help make sense of the behaviours exhibited by organizational members, and approaches to becoming an effective organizational member. [26L]

*Exclusion:* MGT262H, 362H; MGM362H;  
WDW260Y, 260H

*Prerequisite:* MGM200H

## MGM320H5 Financial Reporting

This course will provide an understanding of financial reports, and their use for investment and management decisions. Cases will be used to enhance problem-solving skills and will integrate ideas from finance, management and financial accounting and other areas of study. [26L]

*Exclusion:* MGT222H, 224H, 320H, 322H

*Prerequisite:* MGM220Y/(221H, 222H)/  
MGT220Y

## MGM332H5 Managerial Finance

This course deals with financial valuation models, capital budgeting decision-rules, the problem of investment under uncertainty, optimal financial structure of the firm; the characteristics of debt, equity and other financial instruments such as options are also analyzed. [26L]

*Exclusion:* MGT331Y(G), 332H, 337Y

*Prerequisite:* MGM230H/MGT230H

## MGM371H5 Introduction to Information Systems

This course has been designed to provide students with a basic understanding of the computer and communications systems that are so central to modern organizations. Unlike programming courses, the focus here is on the knowledge that will enable students to use computer-based systems and to participate in their development. The course covers the technology, design, and application of information systems with emphasis on managerial implications. A wide variety of applications are studied. No previous background in computing is assumed. [26L]

*Exclusion:* MGT371H, CSC340H

## MGM400H5 Special Topics in Management

A series of advanced seminars and projects, designed to integrate the themes of the program and to draw connections with current issues of importance in private- and public-sector organizations. [26L]

*Exclusion:* MGT400H

*Prerequisite:* MGM290H, 362H

## "MGT" Management Courses

**"MGT" courses at the 200, 300, and 400 levels are available only to students in the Commerce programs and, if space is available, to non-degree students.**

**MGT353H, 363H, 492H are open to Management major students.**

**Non-degree students who have taken a prerequisite course outside of the University of Toronto must submit a transcript before classes start to the Student Advisor, Room 215K.**

## MGT120H5 Financial Accounting I

Introduction to the theory and concepts of financial accounting. Students learn how to construct and interpret financial statements. Topics include an introductory understanding of accounting and the context within which accounting occurs. [26L]

## MGT220H5 Financial Accounting II

Expands the analysis of financial accounting beyond MGT120H. Cases are used to develop critical thinking and communication skills. Topics include accounting's conceptual framework, analysis of business and financial statements, accounting for assets, and valuation of bonds. [26L]

*Exclusion:* MGT121H/222H/290H(G)

*Prerequisite:* At least a "C" in MGT120H

## MGT223H5 Management Accounting I

(Formerly MGT123H)

Covers conceptual and analytical foundations of cost accounting and uses of accounting by management. Cost concepts for product costing and decision making provide an understanding of the uses of accounting information by management. Costing and control concepts are analyzed to equip students with tools for establishing costing systems and to make decisions. [26L]

*Exclusion:* MGT123H/291H(G)

*Prerequisite:* At least a "C" in MGT120H

## MGT224H5 Financial Accounting Theory & Policy I

Expands the analysis of financial accounting beyond MGT220H. Technical topics include accounting for leases, capital assets, revenue recognition, intangibles and contingencies. Emphasis on implication for valuation and analysis. [26L]

*Prerequisite:* MGT220H

## MGT252H5 Principles of Marketing

An introduction to the basic concepts of market definition, consumer behaviour, and the principal marketing functions: product line development, pricing, distribution, promotion, salesforce management, advertising, research, and planning. [26L]

*Exclusion:* MGM252H, MGT352H

## MGT262H5 Individual and Group Behaviour in Organizations

Theoretical ideas and practical applications concerning the behaviour of individual and group behaviour in organizations. We explore relevant problems confronting management: motivation, influence, communication, supervision, decision-making, and work force diversity. [26L]

*Exclusion:* MGM300H, 362H; MGT362H; WDW260Y, 260H

## MGT321H5 Auditing

A study of the concepts and theory underlying audit practice. Students are introduced to the CICA Handbook recommendations and guidelines for assurance. Practical examples are used to help students develop skills in exercising professional judgment. [26L]

*Prerequisite:* MGT224H

## MGT322H5 Financial Accounting Theory and Policy II

Examines several current measurement and disclosure issues in financial reporting, within a "quality of earnings" framework. Topics include: financial instruments, measuring and reporting pensions, financial reporting of corporate income taxes, corporate reporting via the Internet, etc. The emphasis is on developing judgment. [26L]

*Prerequisite:* MGT224H

## MGT323H5 Managerial Accounting II

Introduction to the different contexts in which costs need to be determined for goods sold internally, externally, domestically, and internationally. Other topics include appropriate cost structures for centralized, decentralized, and matrix forms of organizations and costs for long-term capital projects. Cases are used to promote understanding of the theories. [26L]

*Prerequisite:* MGT123H/223H; ECO220Y/227Y/STA(250H, 255H(G))/STA(257H, 261H)

## MGT330H5 Investments

Security analysis and portfolio management. Emphasis is placed on an analysis of bonds and common stocks. [26L]

*Corequisite:* MGT331Y(G)/337Y

*Recommended Preparation:* MGT120H

## MGT337Y5 Business Finance

Valuation models, cost of capital, capital budgeting, investment under uncertainty, the use of leverage, dividend policy, the financial environment within which Canadian companies operate. The characteristics of various debt and equity instruments available in the Canadian capital market. [52L]

*Exclusion:* MGT331Y(G), ECO358H(G)

*Prerequisite:* ECO200Y/206Y, ECO220Y/227Y/STA(250H, 255H(G))/STA(257H, 261H); MGT120H

## MGT353H5 Introduction to Marketing Management

An applications-oriented course intended to develop the analytic skills required of marketing managers. The course is designed to improve skills in analyzing marketing situations, identifying market opportunities, developing marketing strategies, making concise recommendations, and defending these recommendations. [26L]

*Prerequisite:* MGT252H/352H

*Recommended Preparation:* ECO220Y/227Y/STA(250H, 255H)/STA(257, 261H)

## MGT363H5 Organization Design

The course covers the relationship between design and effectiveness; the impact and determinants (environment, technology, competitiveness, size, life-cycle, communication needs) of an organization's form as well as the difficulties of re-framing organizations. [26L]

*Exclusion:* WDW260Y, 260H

## MGT371H5 Introduction to Business Information Systems

This course helps students use, develop, and manage computer-based systems. The first half covers the basic features of hardware, software, communications, and databases. The second half examines how users, businesses, the economy, and society are affected by the development of this technology. No previous background in computing is assumed. [26L]

*Exclusion:* CSC340H; MGM371H

**MGT374H5 Operations Management**

Operations management is concerned with the facilities and their operation to deliver the goods and services of the organization. The course develops this theme and gives a theoretical framework for managing operations. Some of the major themes include aggregate planning, materials management, and inventory control. This course introduces students to modern quantitative and computing tools necessary for in-depth operational analysis and planning. [26L]

*Exclusion:* MGT474H(G)

*Prerequisite:* ECO220Y/227Y/STA(250H, 255H(G))/STA(257H, 261H)

**MGT393H5 Legal Environment of Business I**

An introduction for commerce students to the Canadian legal system focusing on business entities, the structure of the Canadian court system, the various elements of contract law and the law of negligence. [26L]

*Exclusion:* JGM291H

**MGT394H5 Legal Environment of Business II**

This course builds on the legal principles developed in Legal I and canvasses other areas of law that impact a business entity. The course deals with the Sales of Goods Act and relevant consumer protection legislation, employment law, environmental law, the Personal Property Security Act and the rights of the secured creditor. [26L]

*Exclusion:* JGM291H

*Prerequisite:* MGT393H

**MGT401H5/402H5 Supervised Reading Course on an Approved Subject**

Open when a faculty member is willing and able to supervise. Students must obtain the approval of the Director of Commerce and the supervising faculty member before enrolling.

*Prerequisite:* Cumulative GPA of at least 2.70

**MGT411H5/412H5/413H5/414H5/416H5/417H5/418H5/419H5 Special Topics in Management**

Topics and issues in Management. Content in any given year will depend on the instructor. Consult the Commerce web site for course description and prerequisites. [26L]

**MGT415H5 Special Topic in Management: Electronic Commerce**

Electronic commerce, the extensive business use of the Web and the Internet, is radically changing existing businesses. New Internet businesses are also being created at an unprecedented rate. New business models, e-commerce technologies, payment mechanisms, legal and regulatory issues (in particular, intellectual property rights, privacy and security) and the economics of e-commerce will be investigated from a research and practical perspective. [26L]

*Prerequisite:* MGT371H

**MGT421H5 Advanced Auditing Topics**

The course focuses on the reasoning and evidence theory underlying audit decision making. Coverage includes professional judgement, statistical auditing, assurance engagements, and public sector auditing. [26L]

*Prerequisite:* MGT321H

**MGT422H5 Computer Auditing**

This course investigates strategies and procedures used to audit computerized accounting systems based upon their special control characteristics. Special attention is devoted to computerized statistical procedures. [26L]

*Prerequisite:* MGT321H, 371H

**MGT423H5 Canadian Income Taxation I**

This is the first of two courses in federal income tax law. It is designed to give the student a basic understanding of the Income Tax Act and its administration. This is achieved by applying the law to practical problems and case settings. Topics covered include: residence, employment income, property income, business income, capital gains, computation of taxable income and tax for individuals. [26L]

*Prerequisite:* MGT322H/323H/337Y

## **MGT426H5 Advanced Accounting**

The emphasis in this course is on accounting issues and practices relating to long-term investments, consolidations, foreign transactions and foreign investments.

International accounting issues are also introduced. Assigned material includes cases to ensure that the user impact of accounting choices is appreciated. [26L]

*Prerequisite:* MGT322H

## **MGT428H5 Management Control**

Management control includes all the processes and systems, many accounting-based, by which key managers allegedly ensure that resources are acquired and used effectively and efficiently in the accomplishment of an organization's goals. The case method is used to provide an understanding of the issues and environment of management control. [26L]

*Prerequisite:* MGT323H

## **MGT429H5 Canadian Income Taxation II**

This is the second of two courses in federal income tax law. It is designed to give the student an understanding of more complex issues of Canadian Income Tax law and tax planning. This is achieved through a combination of lectures and the application of the law to practical problems and case settings. Topics include computation of corporate taxes, integration, corporate reorganizations, surplus distributions, partnerships and trusts. [26L]

*Prerequisite:* MGT423H

## **MGT431H5 Advanced Topics in Corporate Finance**

Application and development of the ideas in MGT337Y to corporate finance problems such as initial public offerings and project evaluation. [26L]

*Prerequisite:* MGT337Y/(at least B<sup>+</sup> in MGT331Y; ECO200Y/206Y)

## **MGT438H5 Futures and Options Markets**

Analysis of derivative instruments such as futures contracts, put and call options and swaps. Emphasis is placed on the valuation of these instruments as a foundation for valuing complex securities. [26L]

*Prerequisite:* MGT337Y/(at least B<sup>+</sup> in MGT331Y; ECO200Y/206Y)

## **MGT439H5 International Finance**

International financial markets, exchange rates, forward markets, interest rate parity. International dimensions of investment, including both portfolio and foreign direct investment. International dimensions of corporate finance, including valuation and the cost of capital of foreign investments. [26L]

*Prerequisite:* MGT337Y/(at least B<sup>+</sup> in MGT331Y; ECO200Y/206Y)

## **MGT452H5 Advanced Marketing Management**

The emphasis in this course is on marketing decision making in a dynamic environment. Building on the concepts and skills developed in MGT353H, the course focuses on the major decisions facing marketing managers in the attempt to harmonize the resources of the organization with the opportunities in the market. [26L]

*Prerequisite:* MGT353H

## **MGT453H5 Marketing Research**

Marketing research is studied from the perspective of the marketing manager. The course focuses on the initiation, design, and interpretation of research as an aid to marketing decision making. Case studies and projects are used to provide students with some practical research experiences. [26L]

*Prerequisite:* MGT353H; ECO220Y/227Y/STA(250H, 255H(G))/STA(257H, 261H)

## **MGT454H5 Special Topics in Marketing**

This course focuses on a specific theoretical or functional area of marketing. The area of concentration depends on the instructor. Examples of areas that may be covered include current issues in consumer behaviour, advertising, industrial marketing, or retailing. [26L]

*Prerequisite:* MGT353H

**MGT491H5 Introduction to International Business**

Focuses on developing an understanding of the fundamentals of doing business in an international environment. Based on the application of management theory, (trade theory, modes of entry, foreign direct investment, theory of the multinational) to the strategic management problems of organizing business in the international arena. [26L]

*Prerequisite:* 1.0 credit in MGT at the 300/400 level

**MGT492H5 Introduction to Strategic Management**

Focuses on industry analysis and different models of the firm. The key questions addressed are: "why do some firms succeed where others fail?" and "what strategy should a firm employ to reach its goals?" [26L]

*Prerequisite:* 1.0 credit in MGT/MGM at 300/400 level

**MGT493H5 Small Business Management**

Skills needed to set up and run a small business. Development of a business plan. Securing financing. Finding and keeping customers. Operations management. Aspects of legal, financial and taxation concerns of smaller businesses. [26L]

*Prerequisite:* 1.0 credit in MGT at 300/400 level

**Mathematics***Professors:*

J. Alexander, B.Sc., M.Sc., M.A.

I.R. Graham, B.Sc., Ph.D.

Y. Karshon, Ph.D.

R.A. Mathon, Dipl. Ing., M.Sc., Ph.D.

V.K. Murty, B.Sc., Ph.D., F.R.S.C.

L. Seco, B.Sc., Ph.D.

F.D. Tall, A.B., Ph.D.

S. Tanny, B.Sc., Ph.D.

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Mathematics teaches one to think analytically and creatively. It is a foundation for advanced careers in a knowledge-based economy. Students who develop strong backgrounds in mathematics often have distinct advantages in other fields such as physics, computer science, economics, and finance.

The twentieth century has been a remarkable one for discovery in mathematics. While new mathematical ideas may evolve in the domain of pure thought, the real world is also a key source of mathematical inspiration. Problems in computer science, economics and physics have opened new fields of mathematical inquiry, and discoveries at the most abstract level often lead to breakthroughs in applied areas.

The Mathematical Sciences Specialist Program at UTM is supported by the Departments of Computer Science and Statistics as well as Mathematics. It provides students with a solid foundation in the fundamental theoretical aspects of the mathematical sciences along with a broad range of techniques for applying this theory. The program can be taken in its entirety at UTM.

Most first-year students at UTM take a course in calculus. We offer three:

MAT133Y, MAT132Y and MAT138Y.

MAT133Y serves students in the Commerce program. It counts as a Social Science course, and cannot be used as a

prerequisite for any other MAT course. MAT132Y and MAT138Y are distinguished by the speed at which the course material is covered. Which of these two is correct for you?

MAT132Y is the standard course for students who have completed OAC Calculus and OAC Algebra & Geometry **OR** MCB4U and MGA4U/MDM4U.

MAT138Y is the more intensive calculus course at UTM; it contains all the material of MAT132Y and much more. It is the recommended course for students who come to university with A's in their OAC Mathematics **OR** in MCB4U and MGA4U. Because of the advanced nature of MAT138Y, Registrarial Services allows a generous extension of the time allowed to transfer from MAT138Y to MAT132Y without academic or financial penalty.

MAT232H consists of that part of the material of MAT138Y that is not covered in MAT132Y. Students completing MAT132Y who wish to enter the Mathematical Sciences program must take MAT232H, which is also offered each summer at UTM.

MAT102H is a special course for beginning mathematical sciences students. It is intended to bridge the gap between high school mathematics, where mathematical proofs and logical arguments are often omitted, and university level mathematics, where proofs are critical to full understanding of the material. Concepts learned in MAT102H will already become useful in MAT248Y and MAT258Y, the two pillars upon which most of the more advanced courses rest.

MAT222H and MAT212H are surveys of the material in MAT248Y and MAT258Y, respectively. These half courses are not suitable preparation for further study in Mathematics, but are designed for students in other programs.

MAT315H and MAT378H are special third-year courses in pure mathematics which continue the development of mathematical reasoning begun in MAT102H. They are required as prerequisites for the fourth-year courses. The other third-year courses are valuable for applications and connections with other fields of study.

Those who wish to pursue graduate studies in pure mathematics should inquire about taking some additional advanced courses on the St. George campus. Anyone wishing to take a Mathematics course on the St. George campus should check with the Faculty Advisor concerning possible exclusions.

Additional information about the Mathematics Department, its course offerings and its faculty, can be found on the World Wide Web at:  
[www.utm.utoronto.ca/~w3math](http://www.utm.utoronto.ca/~w3math)

## **MAT102H5 Introduction to Mathematical Proofs**

Introduction to logical notation and its use in various types of mathematical proofs. Applications to: sets, functions, bijections, equivalence relations, products, finite and infinite sets, cardinality. This course is designed to introduce students to abstraction and rigour. It is strongly recommended for all first year students who are interested in specializing in Mathematics. [26L, 26T]

**Exclusion:** This course may not be taken for degree credit by any student who has taken or is currently enrolled in any third year Mathematics course.

**Prerequisite:** OAC A&G **OR** Grade 12 Advanced Functions and Introductory Calculus (MCB4U) and Grade 12 Geometry and Discrete Mathematics (MGA4U)

## **MAT132H5 Calculus**

Techniques of differentiation and integration. Calculation of limits. Trigonometric functions. Related rates. Extreme values. Graph sketching. Applications of calculus. Introduction to sequences and series. (Primarily intended for non-specialists). [52L, 52T]

**Exclusion:** MAT112Y, 133Y, 138Y

**Prerequisite:** OAC Calculus, OAC A&G/FM **OR** Grade 12 Advanced Functions and Introductory Calculus (MCB4U) and (Geometry and Discrete Mathematics (MGA4U)/Mathematics of Data Management (MDM4U)) **OR** P.I. based on diagnostic assessment

**MAT133Y5 Calculus and Linear Algebra for Commerce**

Mathematics of finance, matrices and linear equations. Review of differential calculus; applications. Integration and fundamental theorem; applications. Introduction to partial differentiation; applications. [78L, 24T]  
*Exclusion:* MAT132Y, 138Y, 123H(G), 124H(G), 125H(G), 126H(G), 135Y(G), 137Y(G), 157Y(G),

*Prerequisite:* OAC Calculus; OAC A&G/FM **OR** Grade 12 Advanced Functions and Introductory Calculus (MCB4U) and Grade 12 Mathematics of Data Management (MDM4U)

**MAT138Y5 Calculus**

Derivatives, integrals, the fundamental theorem of calculus, improper integrals and limits, a brief introduction to sequences and series. Differential and integral calculus of several variables: partial differentiation, chain rule, extremal problems, Lagrange multipliers, classification of critical points. Multiple integrals, Green's theorem and related topics. This course is faster paced than the MAT132Y/232H sequence.

[78L, 26T, 4P]

*Exclusion:* MAT112Y, 132Y, 133Y, 232H  
*Prerequisite:* OAC Calculus; OAC A&G **OR** Grade 12 Advanced Functions and Introductory Calculus (MCB4U) and Grade 12 Geometry and Discrete Mathematics (MGA4U)

**MAT212H5 Short Course in Differential Equations**

Ordinary differential equations. Emphasis throughout on applications. (Suitable for non-specialists). [26L, 13T]

*Exclusion:* MAT258Y

*Prerequisite:* MAT132Y/138Y

**MAT222H5 Short Course in Linear Algebra**

Matrices, linear transformations, systems of linear equations, determinants, canonical forms, applications. (Suitable for non-specialists). [26L, 13T]

*Exclusion:* MAT248Y

*Prerequisite:* MAT132Y/138Y/OAC

Algebra and Geometry

**MAT232H5 Short Course in Calculus of Several Variables**

Differential and integral calculus of several variables: partial differentiation, chain rule, extremal problems, Lagrange multipliers, classification of critical points. Multiple integrals, Green's theorem and related topics. (Primarily intended for non-specialists). [39L, 13T]

*Exclusion:* MAT138Y

*Prerequisite:* MAT132Y

**MAT248Y5 Linear Algebra and Linear Programming**

Vector spaces, basis and dimension, quotient spaces, abstract linear transformations, matrices and changes of basis, dual spaces, determinants, linear equations, eigenvectors, inner product spaces, reduction of normal matrices, quadratic forms. Linear programming. Applications. [78L, 26T, 4P]

*Exclusion:* MAT222H

*Prerequisite:* MAT102H, 138Y/232H

**MAT258Y5 Ordinary Differential Equations**

Ordinary differential equations of the first order. Higher order linear differential equations and systems. Phase plane analysis of linear and nonlinear differential equations. Other topics: series solutions, numerical methods, applications.

[78L, 26T, 4P]

*Exclusion:* MAT212H

*Prerequisite:* MAT102H, 138Y/232H

*Note:*

MAT248Y and MAT258Y are designed to be taken simultaneously.

**MAT309H5 Introduction to Mathematical Logic**

The nature of axioms, proofs and consistency. Introduction to the theory of recursive functions. Gödel's incompleteness theorems and related results. [39L]

*Exclusion:* CSC438H(G)

*Prerequisite:* MAT102H/ PHL245H, MAT132Y/138Y, 248Y

# Mathematics

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## MAT311H5 Partial Differential Equations

Partial differential equations of applied mathematics, mathematical models of physical phenomena, basic methodology.

[39L]

*Prerequisite:* MAT102H, 138Y/232H, 212H/258Y

## MAT315H5 Introduction to Number Theory

Elementary topics in number theory such as: prime numbers; arithmetic with residues; Gaussian integers, quadratic reciprocity law, representation of numbers as sums of squares. (This course emphasizes rigour).

[39L]

*Prerequisite:* MAT102H, 248Y, 258Y

## MAT332H5 Introduction to Nonlinear Dynamics and Chaos

Stability in nonlinear systems of differential equations, bifurcation theory, chaos, strange attractors, iteration of nonlinear mappings and fractals. This course will be geared towards students with interest in sciences.

[39L, 13P]

*Exclusion:* MAT335H(G)

*Prerequisite:* MAT138Y/232H, MAT248Y, MAT258Y

## MAT334H5 Complex Variables

Theory of functions of one complex variable: analytic and meromorphic functions; Cauchy's theorem, residue calculus. Topics from: conformal mappings, analytic continuation, harmonic functions.

[39L]

*Prerequisite:* MAT102H, 138Y/232H

## MAT344H5 Introduction to Combinatorics

Basic counting principles, generating functions, permutations with restrictions. Fundamentals of graph theory with algorithms; applications (including network flows). [39L]

*Prerequisite:* MAT102H, 222H/248Y

## MAT368H5 Vector Calculus

The implicit function theorem, vector fields. Transformations. Parametrized integrals. Line, surface and volume integrals. Theorems of Gauss and Stokes with applications. [39L]

*Prerequisite:* MAT102H, 138Y/232H

## MAT378H5 Foundations of Analysis

A challenging course in sequences and series, limits, convergence tests.

Fundamental theorems of analysis: Cauchy sequences and completeness, topological properties. (This course emphasizes rigour.)

[39L]

*Prerequisite:* MAT102H, 248Y, 258Y

## MAT438H5 Analysis

Continuity, existence theorems, integration, pointwise and uniform convergence. [39S]

With permission of the instructor, this may be taken as a reading course.

*Exclusion:* MAT388H

*Prerequisite:* MAT378H

## MAT448H5 Algebra

Introduction to groups, rings, and fields.

[39S]

With permission of the instructor, this may be taken as a reading course.

*Prerequisite:* MAT315H

## MAT478H5/488H5/498H5 Topics in Mathematics

Introduction to a topic of current interest in mathematics. Content will vary from year to year. Enrolment by permission of instructor only. [39S]

*Prerequisite:* P.I.

## Philosophy

*Professor Emeritus:*

A. Gombay, B.A., M.A., B.Phil.

*Professors:*

J. Brunning, B.A., M.A., Ph.D.  
P. Clark, B.A., Ph.D.  
B.D. Katz, B.A., M.A., Ph.D.  
A. Mullin, B.A., M.A., Ph.D.  
J. Nagel, B.A., M.A., Ph.D.  
G. Rattan, B.Sc., M.Phil., Ph.D.  
M. Rozemond, B.A., Ph.D.  
S. Tenenbaum, B.A., M.A., Ph.D.

*Discipline Representative and*

*Faculty Advisor:* Professor A. Mullin  
Room 285A, North Bldg.  
(905) 828-3752

The Greek words from which "philosophy" is formed mean "love of wisdom" and all great philosophers have been moved by an intense devotion to the search for wisdom.

What distinguishes philosophy from the physical and social sciences is its concern not only with the truths that are discovered by means of specialized methods of investigation, but with the implications such discoveries have for human beings in their relations with one another and the world. Moreover, philosophy has an abiding interest in those basic assumptions about the nature of the physical and social world, and about the nature of inquiry itself, which underlie the methodology by means of which scientists seek to explain their observations.

Philosophy examines the grounds for those beliefs that make up people's fundamental views of the world. Here are a few fundamental beliefs, some held by some people, some by others: "Telling lies is always wrong," "Some things can never be known," "The material world is all that exists," "What is right or wrong depends entirely on one's society or culture," "People are inherently selfish," "Life must have a transcendent purpose." There are many other similar beliefs which deeply affect the way we think and live. Philosophers discuss them as thoroughly and systematically as possible.

The Philosophy Department offers courses that study basic works of famous philosophers of the past taken in their

historical settings, and it offers courses in which students are trained to think critically about philosophical issues themselves. A glance through the courses offered in Philosophy will inform any prospective student of the names of philosophers studied, and the special areas investigated in the Philosophy programs at the University of Toronto. A dictionary or encyclopedia will supply the standard definition of logic, ethics, epistemology, and metaphysics. But one who wants to know what philosophy is must do it. A student can learn a great deal from a study of what has been written by the great philosophers through history. But such study is only an important preliminary. To read without bold and critical thinking is next to useless.

Some students may not wish to undertake more than a few courses in Philosophy to supplement their work in other fields. They may make a free choice among the courses offered by the Department. The only restrictions are that they take no more than one 100 level course and that 300 and 400 level courses presuppose previous work in Philosophy. Courses at the 200 level are open to all students who have completed at least four full courses and to those with fewer than four full courses completed who are taking (or have taken) a 100 level course in Philosophy.

Many students will find that their interests embrace Philosophy and some other subject. The Philosophy Department has joint programs with various departments.

Other students will find that their primary interest is in Philosophy. The Specialist Program is designed for such students. Its completion may be a step toward graduate study in Philosophy, or it can lead in other directions; law, journalism, education, theology, and politics are some possibilities. It cannot be stressed too strongly, however, that one of the chief rewards of studying philosophy must always be intrinsic to the subject itself.

### **ERINDALE PHILOSOPHY HANDBOOK.**

Because of space and time restrictions, the Calendar gives only brief and abstract descriptions of courses. The **Philosophy Handbook**, which is produced in the spring,

gives detailed information on course outlines, requirements, readings, instructors, time-tabling, etc. It is available at the Philosophy Department, Room 227, North Bldg., phone (905) 828-3727, or will be mailed on request. It is an essential supplement to the Calendar and students are urged to consult it.

### The Philosophy Discipline

Representative and staff will be glad to offer advice and assistance. To arrange for advising by a Faculty member, phone (905) 828-3752.

### PHL105Y5 Introduction to Philosophy

An introduction to philosophy, covering such topics as conceptions of human nature and the good life, the foundation of morality, the relation of the individual to the state, arguments for the existence of God, debates about the meaning and possibility of free will, the theory of knowledge and the nature of reality. [52L, 26T]

*Exclusion:* PHL100Y, 101Y

#### Note:

All 200 level courses, with the exception of PHL245H, have the prerequisite that the student has completed at least 4.0 credits at the University. This prerequisite is waived for students who are taking (or have taken) a 100 level course in Philosophy. There are no other prerequisites for any 200 level courses.

### PHL200Y5 Ancient Philosophy

(Formerly: Birth of Western Philosophy) Classical doctrines of Plato and Aristotle concerning the universe and God, human knowledge and logic, soul and body, moral values and the good life. Plato's predecessors, the pre-Socratics and Socrates, and post-Aristotelian developments in Stoicism, Epicureanism and neo-Platonism. [78L]

*Exclusion:* CLA200Y

*Recommended Preparation:* PHL100Y/101Y/105Y

### PHL210Y5 17th and 18th Century

#### Philosophy

Classic texts by European philosophers (e.g., Hobbes, Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant). Their attitudes toward science and religion, and their theories about the nature of the world and of human knowledge, culminating in the "Copernican Revolution" of Kant. [78L]

*Recommended Preparation:* PHL100Y/101Y/105Y

### PHL220H5 Introduction to Existentialism

Human perception and knowledge of reality; freedom and the meaning of human life; sexuality and the body. Authors include Heidegger, Buber, Marcel, Camus, Sartre, de Beauvoir, Merleau-Ponty. [39L]

### PHL235H5 Philosophy of Religion

A philosophical analysis of some basic theological questions; the nature of religious belief and experience, the relationship between religion and morality, or religion and science, the role of religion in a pluralistic society. [39L]

### PHL243H5 Philosophy of Human Sexuality

Philosophical issues about sex and sexual identity in the light of biological, psychological, and ethical theories of sex and gender. The concept of gender; male and female sex roles; theories of psycho-sexual development; sexual morality; "natural," "normal," and "perverse" sex; sexual liberation; love and sexuality. [39L]

### PHL244H5 Human Nature

Theories of human nature, e.g., psycho-analysis, behaviourism, sociobiology. Current issues, e.g., egoism and altruism, instincts, I.Q., rationality, sanity and mental illness. [39L]

### PHL245H5 Modern Symbolic Logic

The application of symbolic techniques to the assessment of arguments. Propositional calculus and quantification theory. Logical concepts; techniques of natural deduction. [39L]

## **PHL246H5 Probability and Inductive Logic**

The elements of axiomatic probability theory, and its main interpretations (frequency, logical, subjective). Reasoning with probabilities in decision making and science. [39L]

*Recommended Preparation:* PHL100Y/105Y/245H

## **PHL247H5 Critical Reasoning**

(Formerly: Rhetoric and Reasoning) The area of informal logic—the logic of ordinary language, usually non-deductive. Criteria for the critical assessment of arguments as strong or merely persuasive. Different types of argument and techniques of refutation; their use and abuse. [39L]

*Exclusion:* TRN200H

## **PHL252H5 Philosophy of Science**

(Formerly: Scientific Revolutions: The Invention of Science)

The nature of science and its development. Topics may include: logical positivism and empiricism; the idea of scientific revolutions; incommensurability; the rationality of theory choice; the role of values; meaning and conceptual change; theories of reference; social constructivism. [39L]

## **PHL255H5 Science and Pseudo-Science**

An examination of (for example) ESP, astrology, race and I.Q., scientific creationism, psychoanalysis, sociobiology; the principles of good science as opposed to pseudo-science, especially in "borderline" cases; misuses of science. [39L]

## **PHL267H5 Feminism**

Main types of feminist theory: liberal, Marxist, Existential and "Radical." A number of ethical, political and psychological issues are considered. [39L]

## **PHL271H5 Ethics and the Law**

Moral issues in the law, such as civil liberties and police powers, censorship, civil disobedience, the death penalty, inequality, paternalism, and the constitutional protection of human rights. Case studies from Canadian law. [39L]

*Exclusion:* PHL270Y

## **PHL272H5 Philosophy of Education**

The nature, aims, and content of education; learning theory; education and indoctrination; the teaching of morals and the morality of teaching; the role and justification of educational institutions, their relation to society and to individual goals; authority and freedom in the school. [39L]

## **PHL273H5 Environmental Ethics**

Environmental ethics is a relatively new development in philosophical thinking which focuses on the ethical and value questions arising from our relation to nature. Focal question of the area asks: Is the non-human world of ethical significance only insofar as it is connected with human well-being, or is ethically significant in itself? This course investigates and evaluates anthropocentrism, ecofeminism, and radical biocentric theories of the deep ecologists. [39L]

## **PHL274H5 Contemporary Social Issues**

Against the background of some major social and political theories, this course will explore such practical problems as nationalism, racism, sexism, inequality, revolution, and political radicalism. [39L]

## **PHL277Y5 Moral, Social, and Political Philosophy**

A survey of the major moral and political theorists/theories of the Western philosophical tradition. Questions to be addressed include: Why be moral? Why obey the law? What is justice? What are rights? What is the best form of government? [39L]

*Exclusion:* PHL265H

*Recommended Preparation:* PHL100Y/105Y/105Y

# Philosophy

## **PHL282H5 Ethics: Death and Dying**

(Formerly PHL382H)

An intermediate-level study of moral and legal problems, including the philosophical significance of death, the high-tech prolongation of life, definition and determination of death, suicide, active and passive euthanasia, the withholding of treatment, palliative care and the control of pain, living wills; recent judicial decisions. [39L]

## **PHL283H5 Morality, Medicine, and the Law**

Moral implications of recent developments in medicine and the life sciences; related legal and social issues. Euthanasia, health care priorities, abortion, fertility control, against the background of some major ethical theories. [39L]

*Exclusion:* PHL281H

## **PHL285H5 Aesthetics**

Some central areas in philosophy of art such as the nature of a work of art; definitions and theories of arts, aesthetic experience, perception and sensibility; objectivity in criticism; standards of taste or evaluation. [39L]

## **PHL288H5 Literature and Philosophy**

The literary expression of philosophical ideas and the interplay between literature and philosophy. [39L]

## **PHL290H5 Psychoanalysis**

An introduction to dream psychology, the psychology of errors, instinct theory, mechanisms of defence, the structure of personality. Philosophical topics include: freedom and determinism, consciousness, the nature of conscience, the status of psychoanalysis. [39L]

## **PHL295H5 Philosophy of Business**

Philosophical issues in ethics, social theory, and theories of human nature insofar as they bear on contemporary conduct of business. Issues include: Does business have moral responsibilities? Can social costs and benefits be calculated? Does modern business life determine human nature or the other way around? Do political ideas and institutions such as democracy have a role within business? [39L]

## **PHL296H5 Markets and Morals**

A study of the standards that can be used to judge the performance of economic systems, e.g. efficiency, fairness, maximization, along with the different institutional mechanisms that can be used to organize economic activity, e.g., horizontal or vertical integration, public or private ownership. [39L]

*Recommended Preparation:* ECO100Y

### **Note:**

All 300 level courses, with the exception of PHL 344H-347H, have a prerequisite of 1.5 credits in Philosophy. It is strongly recommended that students prepare for 300 level courses by taking two of the following: PHL100Y/101Y/105Y, 200Y, 210Y, 245H, 277Y. Some 300 level courses have specific prerequisites or recommended preparation, as described below. Students who do not meet the prerequisite for a particular course but believe that they have adequate preparation should consult the instructor concerning entry to the course.

## **PHL299Y5 Research Opportunity Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

## **PHL300H5 Topics in Ancient Philosophy**

A study of some topic or thinker in the ancient period. [26S]

*Recommended Preparation:* PHL200Y/210Y

**PHL307H5 Topics in Mediaeval****Philosophy**

A study of some of the principal figures and intellectual problems in the period from the first century to the sixteenth. Figures such as Philo, Augustine, Abelard, Avicenna, Maimonides, Aquinas, Duns Scotus, Ockham and Suarez will be studied on topics in metaphysics, epistemology, ethics and philosophy of nature. [26S]

*Exclusion:* PHI205Y(G)

*Recommended Preparation:* PHL200Y/210Y

**PHL309H5 Topics in Modern Philosophy**

A study of some topic or thinker in the modern period. [26S]

*Exclusion:* PHL310H(G), PHL311H(G)

*Recommended Preparation:* PHL200Y/210Y

**PHL312H5 Kant**

A systematic study of *The Critique of Pure Reason.* [26S]

*Recommended Preparation:* PHL210Y/309H

**PHL317H5 Topics in Nineteenth Century Philosophy**

A study of some topic or thinker in the 19th century. [26S]

*Exclusion:* PHL315H(G), 316H(G)

*Recommended Preparation:* PHL210Y/309H/ 312H

**PHL324H5 The Continental Tradition**

A study of some of the principal figures and intellectual problems in twentieth-century existentialism and phenomenology. [26S]

*Exclusion:* PHL320H(G), 321HG

*Recommended Preparation:* PHL210Y/309H/312H/317H

**PHL325H5 The Analytic Tradition**

Analytic philosophy up to 1945. Authors include Frege, Russell, Moore, Wittgenstein, and logical positivists such as Ayer. [26S]

*Recommended Preparation:* PHL245H

**PHL332H5 Issues in Metaphysics**

Typical problems: ontological categories; ontological commitment; the objectivity of space and time; causality and determinism; mind and body. [26S]

*Exclusion:* PHL330Y

**PHL333H5 Issues in Epistemology**

Typical problems: knowledge and belief, perception, the analytic-synthetic distinction, theories of truth, necessity and the a priori. [26S]

*Exclusion:* PHL330Y

**PHL340H5 Issues in Philosophy of Mind**

Typical problems: the brain-mind identity theory; intentionality and the mental; personal identity; the nature of human action. [26S]

**PHL341H5 Practical Reason and Human Action**

(Formerly: Freedom, Responsibility, and Human Action)

The course will cover various topics in action theory and the nature of practical reason, such as the nature of intentional action and intentional explanations, the relation between morality and practical reason, the distinction between theoretical and practical reasoning, and the relation between motivation and evaluation. [26S]

**PHL342H5 Minds and Machines**

Can machines think and feel? Are human beings simply very complicated organic machines? These questions are discussed in the light of recent work on the simulation of intelligence and purposive behaviour. [39L]

**PHL344H5 Metalogic**

Soundness and completeness of propositional and quantificational logic, undecidability of quantificational logic, and other metalogical topics. [39L]

*Exclusion:* MAT309H, CSC438H

*Prerequisite:* PHL345H and 1.0 credit in PHL/MAT/CSC

# Philosophy

## PHL345H5 Intermediate Logic

A sequel to PHL245H, developing skills in quantificational logic and treating of definite descriptions. The system developed will be used to study a selection of the following topics: philosophical uses of logic, formal systems, set theory, non-classical logics, and metalogic. [39L]

*Prerequisite:* PHL245H and 1.0 credit in PHL/MAT/CSC

## PHL346H5 Philosophy of Logic and Mathematics

Platonism versus nominalism, the relation between logic and mathematics, implications of Gödel's and Church's theorems, counterfactuals, necessity and possibility, extensional and intensional contexts, intuitionism. [26S]

*Prerequisite:* PHL245H and 1.0 credit in PHL/MAT/CSC

## PHL347H5 Many-Valued and Modal Logics

Many-valued and modal propositional logics and their interrelations; logical matrices and possible-world semantics; problems of interpretation and philosophical applications. [39L]

*Prerequisite:* PHL245H and 1.0 credit in PHL/MAT/CSC

*Recommended Preparation:* PHL345H

## PHL350H5 Philosophy of Language

(Formerly: Philosophy and Theories of Language)

Topics may include: Different approaches to the study of language; the analysis of central theoretical notions in the descriptions of language; the relation between thought and language; the relation between philosophy of language and metaphysics. [26S]

*Prerequisite:* PHL245H

## PHL355H5 Issues in Philosophy of Science

(Formerly: Philosophy of Science)

Central problems and contemporary issues. Topics may include: scientific inference and method; explanation; under-determination; the pessimistic induction; constructive empiricism; entity realism; structural realism; laws of nature. [26S]

*Exclusion:* PHL356H

*Recommended Preparation:* PHL245H/252H

## PHL365H5 Contemporary Political Philosophy

A study of some of the best recent work by political philosophers on topics such as justice, rights, welfare, and political authority. [26S]

*Recommended Preparation:* PHL277Y

## PHL370H5 Issues in Philosophy of Law

Major issues in philosophy of law, e.g., responsibility and punishment, the obligation to obey the law, legal positivism, law and morality. [26S]

*Recommended Preparation:* PHL271H/277Y

## PHL375H5 Contemporary Moral Philosophy

A study of some of the best recent work by moral philosophers on topics such as the objectivity of values, rights and duties, utilitarianism, and the nature of moral judgments. [26S]

*Recommended Preparation:* PHL277Y

## PHL395H5 Special Seminar in The History of Philosophy

An intensive study of some historical figure, theme or period. Topic to vary from year to year. [26S]

### Note:

Prerequisite for all 400 level courses, except PHL451H, is permission of the instructor. This will normally be given only where 4.5 credits in Philosophy have been completed.

**PHL451H5 Language and Logic**

(Formerly PHL351H)

Topics may include: The relation between formal and natural languages; formal syntax; the semantics of names, descriptions, indexicals, demonstratives, logical constants; implicature, context-dependency, presupposition, and the semantics/pragmatics distinction; the nature of propositions.. [26S]

*Prerequisite:* PHL350H

*Recommended Preparation:* PHL345H

**PHL495H5 Senior Seminar in Philosophy**

A seminar for advanced students in Specialist and Major Programs in Philosophy. Topic to vary from year to year. [26S]

**PHL496H5/497H5/498H5/499H5 Individual Studies**

Contact Departmental Advisor.

**Physics***Professor Emeritus:*

R.M. Farquhar, B.A., M.A., Ph.D., F.R.S.C.

*Professors:*

V. Barzda, Dipl. Biophys., Ph.D.  
R.F. Code, B.Sc., A.M., Ph.D.  
D.J. Dunlop, B.A.Sc., M.A., Ph.D., F.R.S.C.  
W. Ghobriel, B.Sc., M.Sc., Ph.D.  
G.W.K. Moore, B.Sc., Ph.D.

*Discipline Representative:*

TBA

*Faculty Advisor:* W. Ghobriel

Room 4040, South Bldg.  
(905) 828-3832

*Departmental Secretary:*

R. Lala  
Room 4037, South Bldg.  
(905) 828-5350

The domain of Physics ranges from its origins in natural philosophy to the most complex achievements of leading-edge technology. Combining the power of mathematics with the art of precision experiments, Physics discovers the mechanisms that interconnect many different aspects of nature. An increasing number of activities in modern science and technology have arisen from a fundamental basis in Physics. Physicists are interested in all systems that can be studied by experimental measurements, and described by mathematical models. An example outside the natural world is the financial market, and its study by physicists has led to the new field of "econophysics".

Students of Physics develop flexible skills in experimentation, problem-solving, analytical thinking, and modeling. A Major or Minor in Physics, in combination with another Major, can strongly enhance studies in the other discipline. Besides Mathematics and other natural sciences, a Major in another quantitative discipline such as Computer Science, Management/Finance, or

Economics is ideally suited to be combined with a Physics Major or Minor. A Physics background enhances future employment opportunities in scientific research and teaching, finance or computer-related enterprises, electronics and engineering, operations research, and in the biomedical professions.

**On enrolling in a Physics specialist degree program:** Students who have successfully completed four full courses of study (including PHY135Y/137Y; CHM140Y; MAT132Y or equivalent, and MAT222H) on the UTM Campus and who seek an Honours B.Sc. degree in Physics should consult with the Department and consider enrolling in the Physics Specialist program (ASSPE1944) on the St. George Campus of the University.

For further information about the undergraduate Physics programs at UTM, contact: Physics Faculty Advisor, (905) 828-3832 or Departmental Secretary, (905) 828-5350 OR e-mail Physics Department at [erindale@physics.utoronto.ca](mailto:erindale@physics.utoronto.ca) OR refer to the Physics web site: [www.utm.utoronto.ca/~w3phy](http://www.utm.utoronto.ca/~w3phy)

### Recommended First-Year Program:

1. For Science Majors and Minors:  
PHY135Y; MAT132Y or equivalent, also MAT222H (for students interested in the Physics Specialist program (ASSPE1944) on the St. George Campus).
2. For students in the Life Sciences:  
PHY135Y; MAT132Y.
3. For students in the Humanities and Social Sciences (Science Distribution Requirement) PHY205H/206H (*note that these may be taken in the first year of study*).

### Notes about second and third year courses:

PHY205H/206H may be taken in the first year and are intended for students in the Humanities and Social Sciences. They may also be taken by Sciences students who wish a more philosophical (PHY205H) or descriptive (PHY206H) presentation of Physics.

PHY224H, 241H, 245H are the core second year courses for the Physics

Major/Minor Programs. They are also open to other Sciences students wishing to take a second year course.

PHY237H is recommended for students interested in Environmental studies.

PHY335H is recommended for students in the Life Sciences, including Biology, Microbiology, Physiology and Psychology.

**Some Physics courses are offered in alternate years.** Check the Physics web site for current offerings:

[www.utm.utoronto.ca/~w3phy](http://www.utm.utoronto.ca/~w3phy)

### PHY135Y5 Introductory Physics

A survey course giving an overview of fundamental concepts such as: vector kinematics; force; torque; linear and angular momentum; rotational motion; work and energy; oscillatory motion; waves; fluids; heat; electricity, magnetism, and relativity. [78L, 27P, 26T]

*Exclusion:* PHY137Y/140Y

*Prerequisite:* OAC Physics/Grade 12(4U) Physics/P.I.; OAC Calc/Grade 12(4U) Advanced Functions & Introductory Calculus; OAC A&G/OAC FM/Grade 12(4U) Geometry & Discrete Mathematics/P.I.

*Corequisite:* MAT132Y or equivalent  
Students without OAC Physics/Grade 12(4U) Physics require P.I.

### PHY205H5(1) Clocks, Quanta and Chaos

A non-mathematical treatment of some key ideas in modern physics, intended for non-specialists. Topics include Einstein's relativity, Schrödinger's cat, chaos and the arrow of time. Each is discussed from the most recent point of view, as well as the familiar historical context. Presented for students in the Social Sciences and Humanities, as well as in the Sciences. [26L, 13T]

*Exclusion:* PHY105H

**Offered in alternate years.**

**PHY206H5(1) The Physics of Everyday Phenomena**

Why is the sky blue? How can sound bend around corners? Common physical phenomena can be explained by simple ideas, without mathematics. Topics include: swimming and sailing; music and earthquakes; lightning and the magnetic Earth. Presented for students in the Social Sciences and Humanities, as well as in the Sciences. [26L, 13T]

*Exclusion:* PHY106H

**Offered in alternate years.**

**PHY224H5 Intermediate Physics Laboratory**

A course introducing electronics, error analysis and laboratory measurement techniques. Experiments are chosen from a number of different fields in physics, beginning with electricity and magnetism, and including quantum physics and biophysics. This is the basic laboratory course for the Physics Major and Minor Programs. [26L, 78P]

*Prerequisite:* PHY135Y/137Y

*Corequisite:* Any 200 level PHY course

**PHY237H5 The Physics of the Climate System**

Introducing the basic physical processes that govern the Earth's climate system. Observation of the climate will be explained through an examination of (for example) planetary motion, the greenhouse effect, radiative transfer, energy balance, the hydrological cycle, and the atmospheric and oceanic circulations. The issue of climate change will be discussed. [26L]

*Prerequisite:* PHY135Y/137Y; MAT132Y or equivalent

**PHY241H5 Electromagnetism**

Topics in electricity and magnetism, beginning with vector analysis and culminating in Maxwell's equations. Electric fields and Gauss' law, conductors, capacitors and dielectrics. Magnetic fields, magnetic materials and devices, induction and Faraday's law. Maxwell's equations and electromagnetic waves are introduced. [26L, 13T]

*Exclusion:* PHY240Y

*Prerequisite:* PHY135Y/137Y; MAT132Y or equivalent

*Corequisite:* MAT232H

*Recommended Preparation:* MAT222H

**PHY245H5 Vibrations and Waves**

The analysis of vibrating systems and wave motion, introducing mathematical techniques such as complex numbers, eigenvalue problems, and Fourier series. Topics include: simple and coupled oscillators; dispersion relations and boundary conditions; travelling waves; propagation of electromagnetic waves in materials; reflection and transmission of waves at interfaces. [26L, 13T]

*Prerequisite:* PHY241H

*Corequisite:* MAT232H

**PHY299Y5 Research Opportunity****Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

**JCP321H5 Introduction to Quantum Mechanics**

(For description see Chemistry courses.)

**JCP322H5 Introduction to Statistical Mechanics**

(For description see Chemistry courses.)

## PHY324H5 Advanced Physics Laboratory

Selected physics experiments that illustrate important principles of physics. Topics include: fiber optics and laser physics, optical interferometers, atomic spectroscopy, microwave optics, absorption of gamma rays, nuclear coincidence counting, gamma ray spectroscopy, X-ray quantum physics, nuclear magnetic resonance, field emission of electrons. [78P]

*Exclusion:* PHY326H

*Prerequisite:* PHY224H, (241H, 245H)

## PHY335H5 Biophysics

(Formerly PHY235H)

Topics from physics selected for students interested in Biology, Biochemistry, Physiology and Psychology. Examples include biomechanics; blood circulation; heat transfer; nerves; optics, vision and microscopy; sound, hearing and ultrasound; medical imaging; molecular transport and diffusion; radiation physics and nuclear medicine. Some aspects will be illustrated by computer modelling techniques. [26L, 13T]

*Prerequisite:* PHY135Y/137Y or equivalent; MAT132Y or equivalent

**Offered in alternate years.**

## PHY341H5 Electromagnetic Radiation and Matter

An overview of electromagnetism leading to the study of radiation. A review of electrostatics, magnetostatics, and Maxwell's equations is followed by a discussion of propagating, non-propagating and guided waves; interactions with dielectric boundaries; multipole radiation fields, and simple models of optical dispersion.

[26L, 13T]

*Prerequisite:* PHY240Y/(241H, 245H)

**Offered in alternate years.**

## PHY344H5 Planetary Physics

A quantitative physical description of the Earth; its dynamics, internal structure and tectonic history. Topics covered are: plate tectonics and continental drift; radiometric dating of rocks; the Earth's rotation, dynamics, gravitational and magnetic fields; ancient magnetic fields; seismological evidence for the internal structure and composition of the Earth. [26L, 13T]

*Exclusion:* PHY444H

*Prerequisite:* PHY(241H, 245H)/P.I.

**Offered in alternate years.**

## PHY345H5 Problem Solving on a Computer

This course introduces Maple V and its ability to manipulate information in symbolic, algebraic and graphical fashions, to approach some important topics in Physics. The computer skills developed in this course have wide-ranging applications across many disciplines. [26L, 13T]

*Prerequisite:* PHY(241H, 245H)/P.I.

**Offered in alternate years.**

## PHY472H5 Introduction to Research in Physics

An experimental or theoretical research problem under the supervision of a Physics professor. By special arrangement, this research problem may be started during the summer before students enter their final year.

*Exclusion:* PHY470Y

*Prerequisite:* Permission of the Physics Faculty Advisor

## PHY473H5 Supervised Readings

A program of individual study chosen by the student with the advice of, and carried out under the direction of, a Physics professor. This course is intended either for specializing further in a subject, or for exploring topics in Physics not covered by existing courses.

*Exclusion:* PHY471Y

*Prerequisite:* Permission of the Physics Faculty Advisor

## Political Science

### Professors:

- R.S. Beiner, B.A., D.Phil.  
S. Bernstein, B.A., M.A., Ph.D.  
A. Braun, B.A., M.A., Ph.D.  
J. Carson, M. Litt.(Oxford)  
R.B. Day, B.A., M.A., Dip. R.E.E.S.,  
Ph.D.  
J.B. Ejobowah, B.Sc., M.Sc., Ph.D.  
R. Iton, B.A., M.A., Ph.D.  
M. Lippincott, B.A., M.A., Ph.D.  
W. Skrobacki, B.A., M.A., Ph.D.  
P. Silcox, B.A., Dipl. of Soc. Admin.,  
M.A., Ph.D.  
P. Solomon, B.A., M.A., Ph.D.  
G. White, B.A., M.A., Ph.D.  
D.A. Wolfe, B.A., M.A., Ph.D.

### Assistant Chair and

*Faculty Advisor:* Professor P. Silcox  
(until June 30, 2003)  
(905) 828-3924

When one asks after the subject-matter of botany or geography or economics, one may hope for a reasonably straightforward and uncontroversial answer. But to ask after the subject-matter of political science immediately plunges one into controversies no less deep and intractable than those that grip political life itself. What is politics? Answers range all the way from, at one extreme, Plato's "the art whose business it is to care for souls," to, at the other extreme, Harold Laswell's "who gets what, when, how." For this reason, the study of politics makes uncommon demands on one's critical faculties; in fact, it is the leading aim of political science to cultivate just this capacity for critical reflection. To be sure, the student of politics can expect to be asked to master a great mass of plain facts, with a view to explaining what makes bureaucracies work; how great powers rise and fall; what constitutes the difference between an effective public policy and a misguided one; how one designs an unbiased opinion poll; what factors shape international decision-making; and so on. Indeed, important disciplines within political science address questions like these. But not even the greatest exertion of fact-mongering can relieve the student of the need to ponder

the more far-reaching questions: Who ought to rule? What is legitimacy? Are liberty and equality compatible? How does one adjudicate between competing ideas about democracy? What are the abiding needs of human beings as such? Are we by nature political animals? In short, one cannot study the doings of citizens, public servants, and governments in abstraction from the attempts, from Plato onwards, to define the very nature of politics itself.

Perhaps it might be said that political science caters to every taste, from those preoccupied solely by the question of how one can rise to be premier of Ontario, to those whose chief longing is to glimpse the true nature of justice. Put less vulgarly, this suggests that the study of politics encompasses the entire range of human concerns in their full diversity. Aristotle went so far as to claim that political science is the "ruling science" insofar as it inquires not merely into this or that aspect of human affairs, but looks to the comprehensive order within which all human activities and practices are governed. It seems fair to say that the subsequent development of Political Science as an intellectual discipline has not left behind this ancient claim, but confirmed it ever anew.

It may be admitted that graduates in Political Science do not typically go on to become professional politicians. More frequently, they proceed to careers in law, journalism, the civil service, and government-business relations.

Students are urged to consult the *UTM Political Science Handbook* and the *Political Science Undergraduate Studies* (available in the Political Science office, Room 207, Kaneff Centre), both of which are published in the spring, for detailed information on course offerings.

Students contemplating taking either 300 or 400 level courses in Political Science at the St. George Campus are advised to consult the *St. George Campus Registration Handbook and Timetable* for instructions.

## POL100Y5 Introduction to Canadian Politics

A study of the political process in Canada, including Canadian political culture, the formation of public opinion, political behaviour, political parties, the constitution, federalism, French Canada, federal-provincial financial relations, and the structure and functioning of political institutions, such as the cabinet, parliament, the judiciary, and the public service.

[52L, 26T]

*Exclusion:* POL110H, 111H, 214Y

## POL110H5 Canada: An Actual Democracy?

Beginning with an exploration of what constitutes "democracy" this course addresses the question of how democratic is Canada's political system. Through examination of a variety of topics assessments will be made of Canada's claim to be democratic. The effectiveness and advisability of possible reforms will be considered. [26L, 13T]

*Exclusion:* POL100Y

## POL111H5 Canada in Comparative Perspective

Examines major facets of Canadian government and politics within a broad comparative context asking what is different or unique about Canada and what resembles political systems elsewhere in the world primarily western industrialized countries. Comparative analysis is used to foster a deeper understanding of Canada and its politics. [26L, 13T]

*Exclusion:* POL100Y

### Note:

200 level POL courses other than POL209Y require standing in either one full 100 level POL course or in at least 4.0 credits in the Faculty; POL209Y prerequisites are listed.

## POL200Y5 Political Theory

The development of political thought to the 17th century. Among the theorists examined are Plato, Aristotle, Machiavelli, Hobbes and Locke. [52L, 26T]

*Prerequisite:* One POL course or 4.0 credits

## POL201Y5 Politics of the Third World

The purpose of this course is to introduce students to the analysis of Third World Politics from the standpoint of the dynamics of underdevelopment. It aims to make students acquainted with the interaction amongst contemporary political structures, ideologies and processes of socio-economic change that occur in the so-called Third World countries. Emphasis is placed on the understanding of the nature and causes of, and responses to, problems of underdevelopment (or, as conventional wisdom has it, Third World's failure to develop). Theories of underdevelopment; the historical roots of underdevelopment; development styles; militarization; political instability; revolutionary changes, and recurrent political processes are discussed by reflecting on the national histories and social structures of countries such as Brazil, Chile, Senegal, and "troubled areas" such as Southern Africa and Central America.

[52L, 26T]

*Prerequisite:* One POL course/4.0 credits

## POL203Y5 Politics and Government of the United States

A comparative study of the development of American government and the main elements of the American political tradition; the structure and functioning of executives, legislatures, courts, bureaucracies, parties, and pressure groups in federal and state government; characteristic processes of American politics such as voting, bargaining, and regulation; and resultant patterns of public policy. [52L]

*Prerequisite:* One POL course/4.0 credits

## POL204Y5 Politics and Government of the U.S.S.R. and its Successor States

The formation and development of the Soviet System of government under Lenin and Stalin; Soviet politics in the post-Stalin era and the struggle for reform; the collapse of Communist party rule and the Soviet state; government and politics in the new Russia, with comparisons to other successor states. [52L]

*Prerequisite:* One POL course/4.0 credits

## POL205Y5 Contemporary British Politics

The main theme of this course is the effect of economic decline and the loss of great power status on political processes and political institutions in Britain. Particular attention will be paid to the impact of social and economic change on the political parties and the party system. [52L]

*Prerequisite:* One POL course/4.0 credits.

## POL208Y5 Introduction to International Relations

Themes: What causes war? How can peace be achieved and sustained? What is the nature of international society and order? What trends are emerging in international affairs as we begin a new century? The main goal of the course is to provide the conceptual and theoretical tools to understand and study world affairs in order to address these questions. Will critically assess the nature and role of actors, institutions, and political and economic forces in shaping world events. [52L, 26T]

*Prerequisite:* One POL course/4.0 credits

## POL209Y5 Canadian Public Policy: From the Golden Age to the Era of Globalization

Examines the changing international context of Canadian public policy and its implications for the scope of public policy in Canada. Reviews the course of public policy over the postwar period and the changing capacity of the national government to respond to the pressures and challenges of the international economy. Focuses on the implications of these developments for specific areas of public policy, such as macroeconomic policy, social policy, industrial policy, trade policy and cultural policy. [52L]

*Exclusion:* POL307Y

*Prerequisite:*

POL100Y/102Y/103Y/108Y/214Y/

MGT120H

## POL214Y5 Canadian Government and Politics

Canada's political system: its key governmental institutions, especially Cabinet and Parliament; federalism; the Charter of Rights and Freedoms; political parties and voting behaviour; ideologies and political culture, public opinion and pressure groups; regionalism and Quebec. Useful as a general course on Canada and a foundation for more specialized study. [52L]

*Exclusion:* POL100Y

*Prerequisite:* One full POL course/4.0 credits

## POL300Y5 Topics in Comparative Politics

Content of course will vary from year to year. [52L]

*Prerequisite:* POL201Y/203Y/204Y/205Y

## POL302Y5 Politics of Western Europe and the European Union

Political institutions and processes in Western Europe, with special reference to Britain, France, Germany and Italy.

Evolution of the European Union, its institutions and policy-making system. [52L]

*Prerequisite:* POL203Y/204Y/205Y

## POL309Y5 The State, Planning and Markets

A study of the political economy of planning and markets, the history of both forms of organization, the political philosophies of liberalism and Marxism upon which they have been based, and the issues of economic efficiency, justice and democratic control in capitalism and socialism. [52L]

*Prerequisite:* POL100Y/102Y/103Y/214Y/ECO100Y

## POL310Y5 Managing International Military Conflict

Analysis of different aspects of conflict management, including security regimes, U.N. peacekeeping, mediation, bilateral as well as multilateral techniques. [52L]

*Prerequisite:* POL208Y

## POL316Y5 Contemporary Canadian Federalism

Constitutional, political, administrative, and financial aspects of federal-provincial relations, regionalism and cultural dualism. [52L]

*Prerequisite:* POL100Y/102Y/214Y

## POL317Y5 Comparative Public Policy and Administration

Major theories and concepts in the fields of public administration and public policy, drawing on the experience of advanced industrialized nations. [52L]

*Exclusion:* POL207Y

*Prerequisite:* POL100Y/102Y/104Y/203Y/205Y/209Y/214Y

## POL320Y5 Modern Political Thought

The development of political thought in the 18th and 19th centuries, including Rousseau, Burke, Hume, Kant, Hegel, the English Utilitarians (Bentham and J.S. Mill), Marx, and Nietzsche. [52L]

*Prerequisite:* POL200Y

## POL322Y5 African-American Politics and Ideology

Overview of the major issues and debates that have marked the development of African-American politics since the end of the Civil War. Issues include the nationalist/integrationist debate, the class/race tension, the attempts to define and negotiate gender roles, the essentialism question, and impact of race upon formal American politics. [52L]

*Prerequisite:* A course in POL.

## POL327Y5 Comparative Foreign Policy

Comparative study of the foreign policies of Russia/USSR, the United States, Great Britain, France, and Germany. [52L]

*Prerequisite:* POL208Y

## POL333Y5 Comparative Provincial Politics

Parties and party systems, elections, voting behaviour, political culture, administrative machinery, decision-making processes and institutions, similarities and differences in public policy. [52L]

*Prerequisite:* POL100Y/102Y/214Y

## POL336Y5 Ontario Politics

Examines the influence of social and economic forces on contemporary Ontario politics, with emphasis on major recent changes in the Ontario political system. Topics include: political parties and elections, structures of governance (cabinet, legislature, etc.), local government and selected public policy issues. [52L]

*Exclusion:* POL331H, 336H

*Prerequisite:* POL100Y/102Y/214Y

## POL340Y5 International Law

International law as an instrument of conflict resolution. Recognition, sovereign immunity, subjects of international law, and jurisdiction are some of the subjects examined. [52L]

*Prerequisite:* POL208Y

## POL343Y5 Politics of Global Governance

Examines the changing nature and forms of governance in the international system. It explores why and how international institutions and organizations arise; the goals, roles, and effectiveness of institutions in managing global problems and creating order and stability, and whether the rules and norms created by such institutions alter state behaviour, influence domestic policies, and/or challenge state sovereignty. [52L]

*Exclusion:* POL328Y

*Prerequisite:* POL208Y

## POL354Y5 Canadian Political Parties

The evolution and setting of Canada's federal and provincial party systems. Topics include historical and theoretical perspectives, ideology, leadership selection, elections, financing, media, and representing interests. [52L]

*Prerequisite:* POL100Y/214Y

## POL355Y5 Contemporary Political Theory

The course will offer a survey of teaching political philosophers of the last half-century (such as Hannah Arendt, Michael Oakeshott, Jørgen Habermas, Alasdair MacIntyre, Michel Foucault, and John Rawls). [52L]

*Prerequisite:* POL200Y, 320Y

## POL440Y5 Politics and Governments of Eastern Europe

Comparative analysis of the former Communist states of Eastern Europe and the post-Communist successor states. [52L]  
*Prerequisite:* POL204Y/208Y

## POL478Y5 Moral Reason and Economic History

(Previously: Topics in Political Economy)  
A study of the interaction between political philosophy and economic history. The course involves alternative conceptions of the relation between individuals and the community, between the economy and the political order, between what 'is' and what 'ought to be'. [52L]

*Prerequisite:* POL320Y

## 400 level Topics Courses

The number of courses and the actual content of the courses will vary from year to year. For details on **specific courses** to be offered, along with their individual prerequisites, consult the *Political Science Handbook*, available every spring. Only minimum prerequisites are listed here.

## POL438H5 Topics in Comparative Politics [26S]

*Prerequisite:* POL203Y/204Y/205Y/302Y

## POL443H5 Topics in Comparative Politics [26S]

*Prerequisite:* POL203Y/204Y/205Y/302Y

## POL476H5 Topics in Political Economy [26S]

## POL477H5 Topics in Political Economy [26S]

## POL484Y5 Topics in Political Thought [52S]

*Prerequisite:* POL200Y, 320Y

## POL486Y5 Topics in International Relations [52S]

*Prerequisite:* POL208Y

## POL490H5 Topics in Canadian Politics [26S]

*Prerequisite:* POL100Y/214Y

## POL491H5 Topics in Canadian Politics

[26S]

*Prerequisite:* POL100Y/214Y

## POL494Y5 Topics in Canadian Politics

[52S]

*Prerequisite:* POL100Y/214Y

## POL495Y5/496H5 Undergraduate Reading Course

These are student-initiated courses of reading and research on a specialized topic of interest to the student. They are normally only open to students enrolled in Political Science Specialist and Major programs. Students wishing to enrol must find a Faculty member willing to supervise the course, develop a program of study in consultation with the supervisor and obtain approval for the course from the Assistant Chair.

*Prerequisite:* Permission of Instructor and of Assistant Chair

## Professional Writing and Communication

### Professors:

G. Allen, B.A., M.A., Ph.D.  
J. Mason, B.A., M.A., Ph.D.  
M. Procter, B.A., M.A., Phil.M, PhD.

### Coordinator: G. Allen

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*Professional Writing and Communication* (PWC) refers to the principles of communication articulated in classical rhetoric and updated through contemporary theory and practice in professional settings. PWC treats communication as interdisciplinary and socially situated. Program courses emphasize the electronic, multicultural, and team-oriented character of contemporary communication.

The PWC curriculum grows out of composition, genre, and discourse theories – research grounded in anthropology, philosophy, psychology, sociology, linguistics, and literary theory. PWC students will examine the way communication, especially written communication, works in professional, academic, artistic, personal and public settings.

PWC aims to produce critical thinkers and flexible, reflective writers who apply their knowledge of language and communications principles across disciplines.

### WRI203H5 Expressive Writing

Examines theory and offers practice in expressive narrative, the most basic prose mode and the foundation for other prose modes. Students explore ideas about product and process, form and meaning. Students will experiment with basic syntactic structures to explore how the form of language serves, or fails to serve, intention and the expression of meaning that may be understood and interpreted by others. The course draws on theorists including Aristotle, Chomsky, Elbow, Kinneavy, Britton, Bakhtin. [26L]

### WRI303H5 Specialized Prose

Examines theory and offers practice in nonfiction prose with a range of specialized purposes. Students will explore conceptions of genre and the way genre shapes, and is shaped by, the social context of communications. The course considers rhetorical devices and figures of speech, such as metaphor and irony, and the way these formal elements influence meaning and the way their application depends on a community of understanding. The course draws from a range of theorists from Aristotle to Rorty, Bazerman, and Fish [26L]

*Prerequisite:* WRI203H

### WRI305H5 Professional Writing and Computer Communications

Examines theories and practices of communication, composition, language, rhetoric, and design relevant to analyzing and producing texts in electronic media. The course draws from a range of theorists including Bolter, Johnson, Joyce, Landow, Lanham, Levinson, McLuhan, Murray, Negroponte, Poster, Turkle, and Johnson-Eilola. [26L]

*Prerequisite:* WRI203H

### WRI307H5 Science and Writing

Examines science as rhetoric and the way this rhetoric mixes with other rhetorics from an interdisciplinary perspective appropriate for science students and for humanities and social science students. The course examines scientific writing and journalistic writing about science. Through theory and applied research and writing, students consider the special features of science rhetoric including protocols for research and documentation. This course draws from a range of theorists including Kuhn, Popper, Hempel, Hacking. [26L]

*Prerequisite:* WRI203H

## **WRI310H5 Social and Professional Languages**

Examines language by approaching it through its social users -- ethnic groups, genders, and social classes -- and its contextualized usages -- the languages of publishing, advertising, law, technical communications, academe and the electronic media. The course explores the functions of these languages and the roles of such forces as dictionaries, social change, and new communications technologies in the evolution of these languages. [26L]

*Prerequisite:* WRI203H

## **WRI320H5 History and Writing**

Examines written history as rhetoric and considers various conceptions of history and procedures for historical research and writing with reference to a range of models from Thucydides to contemporary writers of specialized and local histories. Students will conceptualize, design, and carry out primary source historical research to produce original history using locally available sources and materials. [26L]

*Prerequisite:* WRI203H

## **WRI325H5 Community and Writing**

Examines writing/communication as a social act that both shapes and is shaped by the discourse community where it takes place. Students will explore genre as part of a social system with reference to theories by Fairclough, Kuhn, Lemke, Rorty, Geertz, Swales, Bakhtin. Students will design and carry out original projects that explore the social character of communication. [26L]

*Prerequisite:* WRI203H

## **WRI330H5 Oral Rhetoric**

Examines the rhetoric of speech drawing on theorists from Plato to Havelock to Ong, and considers implications of "great leap models" that present orality and literacy on a continuum. This course considers a range of oral practices from informal to formal, and from spontaneous to research-based and examines a range of rhetorical modes: dialogue, storytelling, "street-talk", reporting, debate, and presentational address. Significant course time will be devoted to students' oral performance, both individual and team-based, ranging from traditional to computer-supported. [26L]

*Prerequisite:* WRI203H

## **WRI340H5 Critical Reading and Listening**

Examines the role and responsibility of the communicator as information processor across a range of rhetorical settings extending from the private to the public sphere. Drawing on theorists such as Bourdieu, Bakhtin, Eco, Fairclough, Foucault, Habermas, Lacan and Lemke for principles of discourse analysis, students learn to recognize, analyze and question the social, political, cultural, ethical and economic dynamics of "text" in order to become critical interpreters of rhetoric across a range of multi-modal, multi-medial forms. [26L]

*Prerequisite:* WRI203H

## **WRI360H5 Organizational Communication**

Examines rhetorical practices common to intra- and inter-organizational discourse. Drawn from theorists such as Fairclough, Lemke, Bazerman, Freedman, Medway, Berkenkotter and Huckin, the principles of discourse analysis and genre theory provide a conceptual framework to examine the ways social, political, cultural and economic discourse communities overlap and interact within institutional structures. Special attention is paid to the multimodal, multicultural and team-oriented character of contemporary organizations. [26L]

*Prerequisite:* WRI203H

# Professional Writing and Communication

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## **WRI390H5 Independent Studies**

A research/writing project chosen by the student in consultation with a faculty member. The student will produce a substantial body of writing (30-60 pages) on professional writing and communications issues. The project supervisor will be chosen in consultation with the Program Coordinator. Open only to Professional Writing students with a B+ average in at least three Professional Writing courses. Students must apply to take WRI390H and WRI391H. Students must fill out an application form available from the Program secretary. The form must be approved by the Program Coordinator.

*Prerequisite:* 10.0 or more credits and permission of Program Coordinator

## **WRI391H5 Independent Studies**

A research/writing project chosen by the student in consultation with a faculty member. The student will produce a substantial body of writing (30-60 pages) on professional writing and communications issues. The project supervisor will be chosen in consultation with the Program Coordinator. Open only to Professional Writing students with a B+ average in at least three Professional Writing courses. Students must apply to take WRI390H and WRI391H. Students must fill out an application form available from the Program secretary. The form must be approved by the Program Coordinator.

*Prerequisite:* 10.0 or more credits and permission of Program Coordinator

## **WRI392H5 Research and Writing**

Examines principles, procedures and practice of original research that culminate in writing and terms that accompany the discourse of research: evidence, results, validity, theory, data, significance with reference to theorists such as Eisner, Geertz, Bogden and Biklen, Clifford and Marcus, Glesne and Peshkin, Strauss and Corbin. Students will design and carry out limited qualitative research projects and will consider criteria for evaluating communications values in research-based writing. [26L]

*Prerequisite:* 1.0 WRI credit

## **WRI410H5 Collaborative Writing**

Examines the principles, procedures and practices of collaborative writing and considers theories by Bruffee, Gere, and Ede and Lunsford that put forth propositions about the process and the product of collaborative design and composition of texts. Students will carry out collaborative writing projects. [26L]

*Prerequisite:* 3.0 WRI credits and P.I.

## **WRI420H5 Making a Book**

Examines principles, procedures and practices in book publishing. Students, working collaboratively, will collect material for, design, edit, typeset, print and assemble books. Students will consider philosophical, aesthetic, and economical factors that guide publishing, editing and design decisions. [26L]

*Prerequisite:* 3.0 WRI credits and P.I.

## **WRI430H5 Journalistic Investigation**

Examines principles, practices, and rhetorical issues in journalistic investigation and writing. The course will consider various models. Students will design and carry out investigative projects that culminate in a series of journalistic articles. [26L]

*Prerequisite:* 3.0 WRI credits and P.I.

## **WRI440H5 Journalistic Investigation**

Special topics. [26L]

*Prerequisite:* 3.0 WRI credits and P.I.

## Psychology

### Professors:

T.M. Alloway, B.A., M.A., Ph.D.  
K. Blankstein, B.A., M.A., Ph.D.  
M. Daneman, B.A., M.A., Ph.D.  
A.S. Fleming, B.Sc., Ph.D.  
L.A.M. Galea, B.Sc., M.A., Ph.D.  
D.J. Graham, B.A., M.A., Ph.D.  
S.B. Kamenetsky, B.A., M.A., Ph.D.  
G. Moraglia, M.A., M.Sc., Ph.D.  
M.K. Pichora-Fuller, B.A., M.Sc., Ph.D.  
P. Pliner, B.S., Ph.D.  
J. Polivy, B.S., M.A., Ph.D.  
E.G. Schellenberg, B.Sc., Ph.D.  
U. Schimmack, B.A., M.A., Ph.D.  
B. Schneider, B.A., Ph.D.  
M.L. Smith, B.Sc., M.Sc., Ph.D.  
W.F. Thompson, B.Sc., M.A., Ph.D.  
S.E. Trebil, B.Com., M.A., Ph.D.

**Associate Chair:** Professor B. Schneider  
Rm. 3035, South Bldg.  
(by appointment)

**Program Director and Undergraduate Advisor:** Dr. Stuart Kamenetsky  
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Psychology is the science that examines the structure and organization of behaviour in animals and humans. It is concerned with the means by which behaviour is acquired, and explores the mechanisms of adaptation to the social and physical environments. Emphasis is on cognitive, social, physiological, genetic, and other factors that determine or affect behaviour.

Among the topics covered by Psychology courses are developmental changes in behaviour, learning, the structure and organization of the senses, modes of perceiving and responding to the environment, genetic events that shape behaviour, the origins and implications of drives, motives, conflicts, and emotions, and the wide variety of individual and species differences that are produced by differences in genetic endowment, physiology, and past experience.

Because of the demands of science for rigour and objectivity, emphasis is given to

the techniques by which behaviour is studied. Because Psychology is concerned with the behaviour of all organisms, the discussion of animal behaviour constitutes an important part of many Psychology courses. An intensive examination of research findings is paramount in all Psychology courses.

Students who are interested in Psychology as a career must be prepared for several years of graduate study. Persons who hold a Ph.D. in Psychology find employment in universities, research institutes, hospitals and clinics, government agencies, and large corporations. A few work as self-employed consultants or therapists. The B.Sc. with a concentration in Psychology is not in itself a professional qualification. People holding bachelor's degrees in Psychology typically find employment in business, technical, educational, or social-service areas. However, further formal or on-the-job training is usually required. Nevertheless, undergraduate courses in Psychology may be valuable to students planning professional careers in medicine, law, nursing and education, for example.

Further information is available from the Program Advisor.

### Important notes about psychology courses.

- Access to courses.** PSY309H, 319H, 329H, 379H, 399H and all 400 level courses have limited enrolments and are normally restricted. Access to all other 300 level courses will be controlled by the Department. Priority is given to students enrolled in programs offered by the Psychology Department. Spaces are allotted on the basis of CGPA. Highest priority is given to students enrolled in one of the Specialist Programs. Consult the *UTM Registration Guide* (available at [www.utm.utoronto.ca](http://www.utm.utoronto.ca)) for specific information.
2. Students may take no more than 2.0 credits in Individual Project or Thesis courses.
3. **UTM students who wish to take Psychology courses at the St. George Campus may do so provided that they have completed the prerequisite courses and they have obtained**

permission from the Psychology Undergraduate Advisor at the St. George Campus. Without such prerequisites, registration in a course may be cancelled at any time. If they wish to use these courses to fulfill UTM program requirements, they must consult the Undergraduate Advisor at UTM.

### **PSY100Y5 Introductory Psychology**

An examination of the science of behaviour, and use of the scientific method in the study of human and animal behaviour. This course, which includes 12 two-hour computer labs, is a prerequisite for all other Psychology courses except for PSY201H and 202H. [52L, 26P]

### **PSY201H5(1) Research Design and Analysis in Psychology I**

Basic descriptive and inferential statistics. [26L, 13T]

*Exclusion:* ECO220Y/227Y/STA220H/BIO360H/SOC300Y

*Prerequisite:* Any OAC Mathematics

### **PSY202H5(1) Research Design and Analysis in Psychology II**

Design of experiments and more advanced methods of statistical analysis, including complex analysis of variance. [26L, 13T]

*Exclusion:* ECO220Y/227Y/STA221H/BIO361H/SOC300Y

*Prerequisite:* PSY201H

### **PSY210H5 Introduction to Developmental Psychology**

An examination of theories, methods, and psychological processes relevant to the study of development, in general, and child development in particular. Topics include historical and philosophical perspectives as well as empirical research on age-related changes in perceptual, cognitive, and social processes. [39L]

*Exclusion:* PSY210Y

*Prerequisite:* PSY100Y

### **PSY213H5 Adult Development and Aging**

An introduction to current research in human development from young adulthood through old age. Adult development will be examined in terms of the interplay of biological, socio-cultural, and psychological determinants, with special emphasis on psychological factors. Topics include the demographics of aging, research methods and problems, developmental changes in sensory-perceptual systems, memory, intelligence, personality, as well as issues related to mental health, dying and bereavement. [39L]

*Exclusion:* PSY313H(G)

*Prerequisite:* PSY100Y

### **PSY220H5 Introduction to Social Psychology**

A survey of classic and contemporary research in social psychology. Topics include attitudes and social cognition, interpersonal relations, group processes, and ethnic attitudes. [39L]

*Exclusion:* PSY220Y

*Prerequisite:* PSY100Y

### **PSY230H5 Introduction to Personality**

An introduction to contemporary personality research. The course focuses on the understanding of individual differences in personality traits. Topics include: measurement of individual differences; the contribution of personality traits and situations to the understanding and prediction of thoughts, feelings, and behaviours; genetic, biological, cultural, and cognitive causes of individual differences in personality traits; and individual differences in unconscious processes, goals, values, and emotions. To increase the self-relevance of research findings, students take a personality test at the beginning of the term. [39L]

*Prerequisite:* PSY100Y

## **PSY240H5 Introduction to Abnormal Psychology**

A survey of contemporary issues in theory and research on abnormal behaviour and its treatment. Topics include the definition of abnormal behaviour, causes and treatment of disorders, diagnosis and assessment, incidence and prevalence, biological and psychological interventions, prevention, as well as legal and ethical issues. Does not focus on specific disorders. [39L]

*Exclusion:* PSY340Y

*Prerequisite:* PSY100Y

## **PSY252H5 Introduction to Animal Behaviour**

An introduction to animal behaviour from a mechanistic perspective. This course will review the evolved neural, endocrine and physiological mechanisms mediating animals' natural behaviours, as well as how gene-environment interactions during development modify these behavioural mechanisms. [39L]

*Prerequisite:* PSY100Y

## **PSY270H5 Introduction to Cognitive Psychology**

An introduction to contemporary theories and research related to human cognition. Topics include attention, memory, language, and problem solving. [39L]

*Exclusion:* PSY270Y

*Prerequisite:* PSY100Y

## **PSY280H5 Perception**

An introduction to current empirical research in perceptual science, with primary emphasis on vision and audition. Topics in vision include anatomy and physiology of the visual system, the perception of contrast, colour, form, depth and motion. Topics in audition include anatomy and physiology of the auditory system, sound localization, the perception of pitch, loudness, and timbre. [39L]

*Exclusion:* PSY280Y

*Prerequisite:* PSY100Y

## **PSY290H5 Introduction to Physiological Psychology**

An examination of principles underlying the study of the nervous system and behaviour, including aspects of normal and abnormal development. [39L]

*Exclusion:* PSY290Y

*Prerequisite:* PSY100Y

## **PSY295H5 Introduction to Neuropsychology**

(Formerly: Psychology and the Brain in the Popular Press)

An introduction to the basic principles of neuroscience and the field of neuropsychology, the study of the pathological brain. Topics include: visual disorders, split brain research, neurodegenerative disorders, the brain pathology associated with each disorder, and the effect on behaviour. [39L]

*Prerequisite:* PSY100Y

## **PSY299Y5 Research Opportunity Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

## **PSY309H5 Experimental Design and Theory**

Practical problems in research design and interpretation of experimental findings. Practice in the critical evaluation of research findings. Students will gain experience in the processes involved in collecting and analyzing data and in using computers to set up psychological experiments. [26L, 26P]

*Exclusion:* PSY209H

*Prerequisite:* PSY(201H, 202H)/equivalent, 1.0 credit in PSY at the 200 level

## **PSY311H5 Social Development**

A survey of contemporary research and theory in social development during infancy, childhood and adolescence, with consideration of the cultural context of development. Topics include attachment, moral development, family relations and peer relations. [39L]

*Prerequisite:* PSY201H (or equivalent), 210H/213H

## PSY312H5 Cognitive Development

A survey of contemporary research and theory related to the development of thinking, intelligence and language. [39L]  
*Exclusion:* PSY315H at UTM before 1994  
*Prerequisite:* PSY201H (or equivalent), 210H/213H, 270H

## PSY315H5 Language Acquisition

An examination of theoretical and empirical perspectives on language and speech processing in childhood, including age-related changes in the perception and production of sounds, words, sentences, conversation, and text. Other topics include bilingualism and language disorders. [39L]  
*Exclusion:* JLP315H(G)

*Prerequisite:* PSY201H (or equivalent), 210H/213H/270H/374H/LIN200H/JAL253H

## PSY316H5 Perceptual Development

This course examines human perceptual development during the first 2-3 years of life. Vision and audition are emphasized. Some topics are: pattern and colour vision, depth perception, infant speech perception. [39L]

*Prerequisite:* PSY201H (or equivalent), 210H/213H, 280H

## PSY318H5 Developmental Neuropsychology

A survey of brain development, its relation to normal cognitive and behavioural development, the effects of early brain damage on development, and specific neurological disorders of childhood. [39L]  
*Prerequisite:* PSY201H (or equivalent), 210H/213H, 252H/290H/295H

## PSY319H5 Developmental Psychology Laboratory

Readings, laboratory exercises and research projects designed to familiarize students with methods relevant to research with infants and children. [39P]  
*Exclusion:* PSY419H

*Prerequisite:* PSY(201H, 202H)/equivalent, 210H/213H, 309H

## PSY320H5 Social Psychology: Attitudes

Attitudes are persistent evaluations (preferences, likes and dislikes). This course examines the measurement of attitudes, the formation of attitudes to new objects, and the change of existing attitudes. General principles are illustrated with examples from various domains, such as propaganda and advertising, stereotyping and prejudice, attitudes towards health behaviours, and self-evaluations (self-esteem, life-satisfaction). [39L]

*Prerequisite:* PSY201H (or equivalent), 220H

## PSY321H5 Cross-cultural Psychology

An examination of culture-blind and culture-bound aspects of traditional psychology. Topics include issues of diversity, cultural influences on basic psychological processes, the impact of culture on social and developmental processes and research applications. [39L]

*Exclusion:* PSY325H taken before 1999-2000.

*Prerequisite:* PSY210H/213H/220H/230H/240H/270H

## PSY325H5 Psychology of the Self

An examination of long-standing and contemporary issues in research on the self, addressing its conceptual, motivational, cognitive and cultural aspects. [39L]

*Exclusion:* PSY320H taken before 1999-2000.

*Prerequisite:* PSY201H (or equivalent), 220H

## PSY327H5 Emotion and Cognition

This course examines the relation between emotion and cognition. In the first part of the course, the influence of cognitive factors (e.g., appraisals, attributions) on emotions is reviewed. In the second part, the influence of emotion on cognition (memory, attention, decision-making) are examined. The course will also examine how cultural, social, and personality factors influence the relation between emotion and cognition. [39L]

*Prerequisite:* PSY201H (or equivalent), 220H/230H/240H

## **PSY329H5 Social/Personality Laboratory**

Independent research projects in social psychology or personality. Each project will include the design of an experiment, data collection, and a written report. [39P]

*Exclusion:* PSY429H

*Prerequisite:* PSY(201H, 202H)/ equivalent, 220H/230H, 309H

## **PSY331H5 Psychological Tests**

A survey of the fundamental psychometric properties of tests, test construction, factors influencing the use and interpretation of tests, and a critical analysis of selected applications of tests. [39L]

*Exclusion:* PSY330H(G)

*Prerequisite:* PSY201H (or equivalent), 1.0 credit in Psychology at 200 level

## **PSY333H5 Health Psychology**

Examines research evidence concerning the impact of psychological factors on physical health and illness. [39L]

*Prerequisite:* PSY201H (or equivalent), 230H/240H

## **PSY340H5 Abnormal Psychology: Adult Disorders**

An examination of current theory and research related to the origin and treatment of specific psychological disorders.

Biological and psychological approaches will be considered, with special emphasis on social learning theories and cognitive-behavioural interventions. [39L]

*Exclusion:* PSY340Y

*Prerequisite:* PSY201H (or equivalent), 240H

## **PSY341H5 Abnormal Psychology: Disorders of Children and Adolescents**

Considers concepts of normal, abnormal and delayed development. Schemes of classification and diagnosis, approaches to identification of causes, and contemporary treatment methods are critically evaluated. The emphasis is on controlled research as a primary source of knowledge about psychological disorders and treatment. [39L]

*Prerequisite:* PSY201H (or equivalent), 210H, 240H

*Recommended Prerequisite:* PSY340H

## **PSY343H5 Theories of Psychotherapy**

The extension of major theories of personality to treatment (therapy) for personality disorders, and research growing out of the theories. [39L]

*Exclusion:* PSY332H

*Prerequisite:* PSY201H (or equivalent), 230H

## **PSY344H5 Forensic Psychology**

An exploration of the role of psychology in forensic science (the application of scientific inquiry into criminal investigation). Topics, which will vary from year to year, could include the assessment of criminal responsibility, competency issues, psychiatric disorders associated with crime, criminal profiling, behavioural analysis of a crime scene, prediction of dangerousness, workplace and family violence, sexual assault/abuse/rape, recovered memories, detection of malingering and deception, deindividuation and bystander intervention, social psychology of the jury, use of psychological tests in legal cases, witness preparation/interrogation, and the psychologist as expert witness. [39L]

*Prerequisite:* PSY240H

## **PSY345H5 Exceptionality: Disability and Giftedness**

A survey of contemporary research, theory, and methodology related to exceptionality in human learning, with special emphasis on developmental disability and giftedness. Topics include hearing impairment, visual impairment, physical disabilities, learning disabilities, communication disorders, behaviour disorders, developmental delay, giftedness, and autism. [39L]

*Exclusion:* PSY442Y

*Prerequisite:* PSY210H/213H

## **PSY346H5 Abnormal Psychology: The Biological Paradigm**

An examination of contemporary theory and research related to the origin, prevention, and treatment of psychological disorders from a biological perspective. The course will focus on the role of behaviour genetics, structures in the brain, and biochemistry in the nervous system in specific disorders (e.g., schizophrenia, mood and anxiety disorders, aggression, premenstrual syndrome, sleep disorders) and will discuss alternative approaches to their treatment (e.g., psychopharmacologic versus behaviourally-oriented therapies). [39L]

*Prerequisite:* PSY201H (or equivalent), 240H, 252H/290H/295H

## **PSY351H5 Evolutionary Psychology**

Application of the theory of biological evolution to understanding the origins and structure of the human mind. [39L]

*Prerequisite:* PSY201H (or equivalent), 270H, 290H

## **PSY357H5 Animal Communication**

A survey of communication systems in animals. Example systems will include acoustic, visual, chemical, and electrical communication in a diverse array of species. We will examine both the evolution of signal design as well as the neural and endocrine systems mediating signal production and perception. [39L]

*Prerequisite:* PSY201H (or equivalent), 252H/290H/295H

## **PSY360H5 Operant and Classical Conditioning**

A survey of empirical findings and theoretical interpretations of learning in animals and related processes in humans. Students will use computer simulation to perform virtual laboratory experiments demonstrating some of the learning phenomena discussed in class. [26L, 26P]

*Exclusion:* PSY360H

*Prerequisite:* PSY201H (or equivalent), 1.0 credit in Psychology at the 200 level

## **PSY362H5 Animal Cognition**

A comparative survey of cognitive processes in animals from an ecological and evolutionary perspective. This course will examine topics including perception, working and reference memory, concept formation and awareness. [39L]

*Prerequisite:* PSY201H (or equivalent), 252H/290H/295H, 270H

## **PSY372H5 Human Memory**

Current theories and data on human memory: Processes involved in encoding, storage, and retrieval. Neuropsychological mechanisms and theories will be considered. [39L]

*Exclusion:* PSY397H (taken before 1999)

*Prerequisite:* PSY201H (or equivalent), 252H/290H/295H, 270H

## **PSY374H5 Psychology of Language**

An examination of contemporary approaches to the psychological study of language and speech, with emphasis on the biological, cognitive, and cultural aspects of language use. Topics include language comprehension, language production, and language disorders. [39L]

*Exclusion:* JLP374H(G)

*Prerequisite:* PSY201H (or equivalent), 270H/315H

## **PSY379H5 Cognitive Psychology**

### **Laboratory**

Readings, laboratory exercises, and research projects designed to familiarize students with methodologies relevant to empirical research in cognitive psychology. [39P]

*Exclusion:* PSY479H

*Prerequisite:* PSY(201H, 202H)/equivalent, 270H, 309H

**PSY385H5 Hearing and Hearing Disorders**

Sound waves impinging upon our ears convey information about the presence, location, and identity of objects in our environment. An examination of the extraction of this information from sound waves and of the disruption of speech understanding and communication by various peripheral and central disorders. [39L]

*Exclusion:* PSY381H

*Prerequisite:* PSY201H (or equivalent), 280H/CCT202H

**PSY393H5 Cognitive Neurology**

Problems in cognitive psychology will be explored from the viewpoint of clinical neurology. Sample topics include amnesia and models of memory, split-brain research, the temporal lobes and verbal and non-verbal memory, the role of the frontal lobes, perceptual asymmetries, and models of brain function. [39L]

*Prerequisite:* PSY201H (or equivalent), 252H/290H/295H, 270H

**PSY395H5 Hormones and Behaviour**

An evaluation of relations between the hormonal system and brain/behaviour in a variety of species (including humans). Behavioural/functional systems to be considered include the reproductive behaviours (sexual and maternal), aggression, circadian rhythms, seasonal rhythms, eating, affective states, learning and memory. [39L]

*Prerequisite:* PSY201H (or equivalent), 252H/290H/295H/BIO204H

**PSY397H5 Neuroplasticity and Behaviour**

An examination of experimental findings and theory documenting the plasticity of the brain and its relationship to behaviour. The course will emphasize gene regulation, neurogenesis and cell morphology changes in relation to learning and experience. [39L]

*Prerequisite:* PSY201H (or equivalent), PSY 252H/290H/295H

**PSY398H5 Motivational Systems**

An examination of the psychological mediators of motivational and/or homeostatic systems, including eating, drinking, and sexual differentiation, as well as sexual, maternal and aggressive behaviour. Consideration of the underlying neuroanatomy, neuroendocrinology, hormonal and sensory mechanisms. In-class demonstrations with rats. [39L]

*Prerequisite:* PSY201H (or equivalent), 252H/290H/295H/BIO204H

**PSY399H5 Psychobiology Laboratory**

Supervised demonstration experiments designed to familiarize students with methods of collecting, analyzing, and reporting data from ethological and physiological experiments with animal subjects. Students handle selected species of animals. [39P]

*Exclusion:* PSY499H

*Prerequisite:* PSY202H (or equivalent), 252H/290H/295H

**PSY400Y5 Thesis**

Independent research supervised by individual faculty members. Seminars on general topics relevant to the conduct of independent research, student research proposals, and the presentation of findings. Admission by academic merit. Students are admitted in the summer prior to their final year of study and are directed to faculty members in their area of interest. [78S, 78P]

*Prerequisite:* PSY201H, 202H(or equivalent), laboratory course in Psychology, satisfactory progress in the Specialist Programs of Psychology, Exceptionality in Human Learning or Animal Behaviour.

**PSY402H5 Systems of Psychology**

A critical analysis of the historical, conceptual, and methodological foundations of influential approaches to the study of mind and behaviour (e.g., behaviourism, psychoanalysis, humanistic psychology, cognitive science). [39S]

*Prerequisite:* 1.0 300 level credit in Psychology

# **Psychology**

## **PSY403H5/404H5/405H5/406H5 Individual Project**

Independent research on a specific aspect of human or animal behaviour. Students arrange for a Faculty supervisor during the preceding term.

*Prerequisite:* PSY201H, 202H(or equivalent), laboratory course in Psychology, 1.0 300 level credit in Psychology

## **PSY410H5 Special Topics in Developmental Psychology**

In depth examination of selected topics in developmental psychology. (Topics change periodically.) [39S]

*Prerequisite:* PSY210H, 1.0 credit from PSY311H, 312H, 315H, 316H, 318H, 319H, 341H, 345H, 442Y

## **PSY415H5 Special Topics in Adult Development and Aging**

In depth examination of selected topics in adult development and aging. (Topics change periodically.) [39S]

*Prerequisite:* PSY213H, 1.0 credit from PSY311H, 312H, 316H, 319H, 320H, 321H, 325H, 332H/343H, 333H, 340H, 345H, 374H, 385H, 442Y

## **PSY420H5 Special Topics in Social Psychology**

In depth examination of selected topics in social psychology. (Topics change periodically.) [39S]

*Prerequisite:* PSY220H, 1.0 credit from PSY311H, 319H, 320H, 321H, 325H, 329H, 332H/343H, 333H, 340H, 341H

## **PSY430H5 Special Topics in Personality**

In depth examination of selected topics in personality. (Topics change periodically.) [39S]

*Prerequisite:* PSY332H/343H, one of PSY311H, 320H, 321H, 325H, 329H, 331H, 340H

## **PSY440H5 Special Topics in Abnormal Psychology**

In depth examination of selected topics in abnormal psychology. (Topics change periodically.) [39S]

*Prerequisite:* PSY340H, one of PSY320H, 321H, 331H, 332H/343H, 333H, 341H, 344H, 345H, 346H, 385H, 442Y

## **PSY442Y5 Practicum in Exceptionality in Human Learning**

Seminar and practicum on issues relating to the life-long development of individuals with disabilities. Seminar at UTM; practicum involves supervised placements in schools or social service agencies. Course is required for students enrolled in the Exceptionality in Human Learning Specialist program and is available to Psychology Specialists, Exceptionality in Human Learning Majors and Psychology Majors and Minors on a competitive basis. Course fulfills the 400 level seminar requirement for the Psychology Specialist Program.

[78S, 78P]

*Exclusion:* PSY345H

*Prerequisite:* 10.0 completed credits, including PSY210H/213H, 1.0 additional 200+ level credit in Psychology

## **PSY471H5 Special Topics in Cognitive Psychology**

In depth examination of selected topics in cognitive Psychology. (Topics change periodically.) [39S]

*Prerequisite:* PSY270H, 1.0 credit from PSY312H, 315H, 360H, 362H, 372/397H, 374H, 379H, 393H

## **PSY480H5 Special Topics in Perception**

In depth examination of selected topics in perception. (Topics change periodically.) [39S]

*Prerequisite:* PSY280H, 1.0 300 level credit in Psychology

**PSY490H5 Advanced Topics in Biological Psychology**

In depth examination of selected topics in biological psychology. (Topics change periodically.) [39S]

*Prerequisite:* PSY270H/290H/295H/BIO204H; 1.0 credit from PSY346H, 362H, 372H/397H, 395H, 398H, 399H; BIO304H

**PSY495H5 Special Topics in Neuropsychology**

In depth examination of selected topics in neuropsychology. (Topics change periodically.) [39S]

*Prerequisite:* PSY290H/295H, 1.0 credit from PSY315H, 318H, 346H, 362H, 372H/397H, 374H, 379H, 393H

**Religion***Professors:*

N.F. McMullin, B.A., S.T.B., M.Th., Ph.D.

L.E. Schmidt, B.A., M.A., Ph.D.

*Discipline Representative and Faculty Advisor:*

Professor L.E. Schmidt  
Room 124, North Bldg.  
(905) 828-3771

Certain forms of human behaviour are widely considered "religious." Moreover, many of us conceive of religion generically, in terms of myths, rituals, doctrines, institutions, etc. Using such categories, students of religion usually classify all religions in relation to a relatively limited number of major traditions called "World Religions." Yet, sophisticated and powerful explanatory models of culture and society depend upon this apparently simple framework. The critical examination and application of such models is what the academic study of religion is about. The Department for the Study of Religion explores religious traditions with intellectual openness and scholarly rigour, without evaluating their specific truth claims.

The study of religion is therefore an excellent education for life in a world of social and cultural complexity. As a mode of enquiry, it is intrinsically rewarding, but it is also uniquely valuable preparation for a wide range of careers in (among other things) government, business, law, social work, teaching, medicine and community leadership. Of course, the academic study of religion can also lead to graduate work (for example at the University of Toronto's Centre for the Study of Religion). While students at UTM may major and specialize in a variety of programs, the particular strength of the Department for the Study of Religion at Erindale is in the area of "religion and society." Certain courses from other UTM departments, such as FAH343H and FAH353H, may be integrated into an RLG program. For further information, please refer to *The Study of Religion* flyer available in the office of the departmental secretary (Room 227, North Bldg.) or from any RLG instructor. Should you wish to set

up an appointment with a faculty advisor, please contact:

Norma Dotto  
(905) 828-3727  
ndotto@utm.utoronto.ca.

## RLG100Y5 An Introduction to the Religious Traditions

An introductory survey of the main teachings, practices and institutions of the major, and several of the minor, religious traditions: namely, Buddhism, Christianity, Confucianism, Hinduism, Islam, Jainism, Judaism, Shinto, Sikhism, Taoism and Zoroastrianism. [52L, 26T]

## RLG105Y5 Contemporary Problems in Religious Ethics

An introduction to the analysis of ethical problems in the context of the religious traditions of the West. Abortion; euthanasia; poverty; environmental degradation; militarism; sex, marriage and the changing roles of men and women; reproductive technologies. [52L, 26T]

## RLG206Y5 The Buddhist Religious Tradition

The teachings of the Buddha and the development, spread, and diversification of the Buddhist tradition from southern to northeastern Asia. [52L, 26T]

*Recommended Preparation:* RLG100Y/280Y

## RLG225H5 Christian Ethics and Human Sexuality

The basis in Christian ethics for: a formulation of standards of inter-personal conduct and sexual relations; an analysis of changing sexual mores, familial structures and child-rearing techniques; and a critical evaluation of the development of reproductive technologies (e.g., artificial insemination, surrogate motherhood). [26S]

*Recommended Preparation:* RLG105Y

## RLG228H5 Religious Ethics, the Environment

An examination of the ways that (particularly Christian) religious beliefs and practices have influenced western attitudes to nature and the analysis of such ethical issues as population growth, environmental degradation and global warming. [26L, 13T]

*Recommended Preparation:* RLG105Y

## RLG230H5 Religion and Literature

(Formerly RLG230Y)

The ways in which selected texts from a variety of cultures are linked to specific religious traditions as well as to broader notions of what it means to be "religious." Concepts to be treated may include identity, suffering, freedom, evil, virtue, ritual, myth, despair, memory, time, beauty, friendship, creation, feminism, and colonialism. (All works to be read in English.) [26L, 13T]

## RLG241Y5 Early Christian Writings: The New Testament

An introduction to the types of literature in the New Testament (Gospels, Acts, Epistles, Apocalypse) and to the distinctive content of the literature as a whole. The history of texts and versions, the process of canonization of the literature, and the critical methods of scriptural study are examined. [52L, 26T]

## RLG242Y5 History of Christianity

The developments of Christian doctrines, rituals and institutions from the third century to the Reformation in specific social and historical contexts. Basic vocabularies and key concepts of pre-modern Christianity, as well as problems of historical knowledge and interpretation, are explored. [52L, 26T]

## RLG243Y5 Major Themes in Biblical Literature

Major religious themes running through biblical literature. Old and New Testament concepts of creation, election, covenant, salvation, divine law, prophecy, wisdom, justification, etc. [52L, 26T]

**RLG246Y5 The Age of Religious Conflict: Catholics and Protestants in Historical Perspective**

The history, intellectual setting, social contexts and historical significance of the Reformation; special attention to works by Hus, Wycliffe, Luther, Zwingli, Bucer, Calvin and others. These will be studied with regard to diverse intellectual and social movements including scholasticism, humanism, communalism, anabaptism, puritanism and catholic reform. [52L, 26T]

*Exclusion:* RLG332Y

**RLG272Y5 China: Culture and Society from Ancient Times to the Present Day**

An examination of the ways in which the major religious traditions (Daoism, Confucianism, Buddhism) have shaped Chinese culture and society. Topics include: divination; myths about the emperor and the state; Daoist masters; Confucian sages; Buddhist monks; and modern views about the individual, the family and the nation. [52L, 26T]

*Recommended Preparation:* RLG100Y/280Y

**RLG273Y5 Japan: Culture and Society from Ancient Times to the Present Day**

An examination of the ways in which the major religious traditions (Shinto, Confucianism, Buddhism) have shaped Japanese culture and society. Topics include: Myths about the emperor and the state; Buddhist monasteries; Shogun; Samurai and the "way of the warrior" and modern views about the individual, the family and the nation. [52L, 26T]

*Recommended Preparation:* RLG100Y/280Y

**RLG280Y5 World Religions: A Comparative Study**

An alternative version of the content covered by RLG100Y for students in second year or higher who cannot or do not wish to take a further 100 level course. Students attend the RLG100Y lectures and tutorials but are expected to produce more substantial and more sophisticated written work, and are required to submit an extra written assignment. [52L, 26T]

*Exclusion:* RLG100Y

*Prerequisite:* Completion of 6.0 credits

**RLG299Y5 Research Opportunity Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

**RLG309Y5 Religion, Morality, Law**

Explores legal, religious and moral discourse with emphasis on specific historical cases and debates drawn mainly from the Western, Christian tradition. Topics include: church and state conflicts, the historical relation between evangelicalism and codified law, attempts to regulate the domestic sphere (marriage and sexuality, charity and welfare), religious and legal arguments in political resistance and the relation of religion and law to identity formation. [52L, 26T]

*Prerequisite:* One RLG course

**RLG323H5 Jesus of Nazareth**

Analytic and comparative study of the earliest accounts of Jesus; the "historical Jesus," viewed in the light of Jewish Messianic expectations. [26L, 13T]

*Prerequisite:* One RLG course

*Recommended Preparation:* RLG241Y

**RLG324H5 Paul of Tarsus**

The literary form of Paul's letters, the sources of his thought, and the theological view that emerges. [26L, 13T]

*Prerequisite:* One RLG course

*Recommended Preparation:* RLG241Y

## **RLG329Y5 The Development of Christian Identity**

The development of Christian identity, as examined from a psycho-social, ethical and theological perspective, and as revealed in personal documents like auto-biographies, diaries and letters. [52S]

*Prerequisite:* one RLG course

*Recommended Preparation:*

RLG105Y/241Y/ 242Y/246Y

## **RLG338Y5 Technology, Ethics and the Future of Humanity**

The role of technology within various projections of global economic development examined from a Christian ethical perspective. Ethical responses to some of the problems that threaten the future of humanity: poverty, resource depletion, environmental degradation, arms build-up, and the biotechnological revolution. [52L]

*Prerequisite:* One RLG course

*Recommended Preparation:* RLG105Y

## **RLG371H5 Buddhism in East Asia**

The development of Buddhist teachings, rituals and institutions in the major civilizations of East Asia (China, Korea, Japan). [26S]

*Prerequisite:* One RLG course

*Recommended Preparation:* RLG206Y

## **RLG373H5 Modern Japan: Culture and Society**

The impact of modern technological developments and Western culture on traditional Japanese society. The role of the "New Religions," as well as the older traditions in 20th century Japan. [26L, 13T]

*Prerequisite:* One RLG course

*Recommended Preparation:* RLG206Y/  
273Y

## **RLG374H5 Buddhism: Its Origins and Development**

The origin and development of Buddhist teachings, practices and institutions in India. Common and distinctive characteristics of the three main branches of Buddhism (Theravada, Mahayana and Tantra), and the ways in which developments in the Buddhist tradition reflected and addressed major changes in the societies in which the tradition existed. [26S]

*Prerequisite:* One RLG course

*Recommended Preparation:* RLG206Y

## **RLG490Y5 Individual Studies**

Student-initiated project of reading and research, supervised by a member of the Department. Primarily intended for Specialists and Majors. After obtaining a supervisor, a student must apply to the Department.

## **RLG491H5 Individual Studies**

Student-initiated project of reading and research, supervised by a member of the Department. Primarily intended for Specialists and Majors. After obtaining a supervisor, a student must apply to the Department.

## **RLG492H5 Individual Studies**

Student-initiated project of reading and research, supervised by a member of the Department. Primarily intended for Specialists and Majors. After obtaining a supervisor, a student must apply to the Department.

## Science

Almost all science-related careers involve some component of education or outreach. The Science Education courses SCI398Y and SCI499H, and the Minor Program in Science Education, are intended for upper-year students in the life, mathematical, or physical sciences (including environmental, forensics, physical geography, and psychology). They introduce Science Education as an important part of the students' major science field(s), as a separate academic discipline, and as a possible career. They include both formal (school, college, university) and informal (public) education. They are not intended solely as preparation for professional studies in Education, though they do provide the necessary background and skills.

### Early Teacher Program (ETP@UTM)

In this partnership program between UTM and the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT), students who successfully complete: (i) interviews with UTM and OISE/UT representatives; (ii) SCI398Y with B- standing or better; and (iii) at least 110 hours of suitable placements; as well as (iv) specific science program and GPA (mid-B or higher) requirements, will be guaranteed entry to OISE/UT's B.Ed. program.

For more information, contact Professor John R. Percy ([jpercy@utm.utoronto.ca](mailto:jpercy@utm.utoronto.ca)) or see: [www.utm.utoronto.ca/~astro/etp.htm](http://www.utm.utoronto.ca/~astro/etp.htm)

### SCI398Y5 Science Education

An introduction to formal (school and university) and informal (public and extracurricular) science education — as an independent discipline and as an important part of specific science disciplines. Includes student projects and presentations. [26L, 26S]

*Prerequisite:* Enrolment in a science major or specialist program; 10.0 completed courses

### SCI499H5 Science Education Project

A major science education project and report, carried out under the supervision of a faculty member in the physical, mathematical, or life sciences. The project may be in formal education (school, university) or informal (public) education.

*Prerequisite or Corequisite:* SCI398Y, P.I.

#### *Note:*

Students wishing to enrol in SCI499F or SCI499H must register with the course co-ordinator, Professor J.R. Percy ([jpercy@utm.utoronto.ca](mailto:jpercy@utm.utoronto.ca)), by providing a copy of their resumé and education interests by September 1.

**Slavic Language (Croatian)***Faculty Advisor:*

Professor K. Lantz  
121 St. Joseph Street Room 409  
St. George Campus  
(416) 926-1300 ext. 3286

**SLA237Y5 Elementary Croatian**

Basic phonology, morphology and sentence structure. Composition, oral practice and readings from Croatian literature. Open only to students with little or no knowledge of Croatian. [104P]

**SLA316Y5 Advanced Croatian**

Systematic study of orthography and syntax. Advanced composition and oral practice. Reading and translation of more complex texts from Croatian writers. [104P]

*Prerequisite:* SLA237Y or equivalent knowledge of the language.

**Sociology***Professors Emeriti:*

D.F. Campbell, B.A., M.A., Ph.D.  
W. Kalbach, M.A., Ph.D., F.R.S.C.(E)  
H.K. Nishio, B.A., Ph.D.(E)  
E. Silva, B.A., M.A., Ph.D.  
J.H. Simpson, B.A., B.D., Th.M., Ph.D.  
M.W. Spencer, A.B., M.A., Ph.D.

*Professors:*

S. Abraham, B.A., M.A., Ph.D.  
M. Blute, B.A., M.A., Ph.D.  
D. Brownfield, B.A., M.A., Ph.D.  
H. Friedmann, A.B., M.A., Ph.D.  
B.S. Green, B.A., Ph.D.  
K. Hannah-Moffat, B.A., M.A., Ph.D.  
J.B. Kervin, B.A., Ph.D.  
W. Zhang, B.S., M.A., Ph.D.

*Associate Chair, Faculty Advisor and Student Advisor:*

Dr. B. Green  
Room 2083, South Bldg.  
(905) 828-3937  
Office Hours: Monday through Thursday

*Departmental Secretary:*

M. Weiler  
Room 2098, South Bldg.  
(905) 828-5395

Sociology is the study of how humans create and understand their relationships. These relationships exist at every scale, from the intimate to the global, and have historical, cultural, political, and other dimensions. Sociologists study how families work; how individuals change over the life course; how norms and laws are made, broken, enforced, and changed; how inequalities of gender, class, and race emerge, continue, and change; how cities, regions, nations, and international institutions work as organized sets of relationships; how power is exercised and resisted; how individuals, groups, and organizations communicate or fail to communicate; how cultural meanings relate to patterned social relationships; and more. Sociology thus creates theories about a broad range of human activity. Sociologists study these questions in two complementary ways. First, they gather data about large

numbers of individuals to discover patterns of behaviour and interpret them through statistical analysis. Second, they gather in-depth data by interviewing and observing individuals and groups, and interpret these data through qualitative methods. A degree in Sociology leads to careers in social policy, government, education, health, public opinion research, community and social services, non-governmental, cooperative, business and non-profit organizations, criminology and corrections, industrial and labour relations, evaluation research, and environment.

Students may select from a variety of special areas of interest in their Specialist or Major programs. They may also consult with the department for other combinations of courses such as those emphasizing Canadian society, interpersonal relations, or research methods. The Department offers a Specialist, a Major, and Minor program in Sociology, and a Major in Crime & Deviance.

**SOC101Y5 Introduction to Sociology**

An introduction to the conceptual and methodological foundations of the discipline. The relationship between theory and research in the study of society will be stressed. [52L, 26T]

**SOC200Y5 Introduction to Quantitative and Qualitative Research Methods**

An introduction to the logic of inquiry in social research. Univariate, bivariate and multivariate analysis and graphical representation of statistical data will form about one-half of the course material. The other half will be devoted to qualitative analysis including interviewing, content analysis focus groups and research reporting. Computer applications will be an essential part of the course. [52L, 26T]

*Prerequisite:* SOC101Y

**SOC202Y5 Structure of Interpersonal Relations**

A study of patterned relationships, social roles, and social expectations that arise out of interaction among individuals. [52L]

*Prerequisite:* SOC101Y

**SOC204Y5 Current Social Issues in Canadian Society**

The purpose of this course is to provide the student with a sociological understanding of conditions currently defined as social issues or problems in Canadian society. This course begins with a description of the various processes through which social phenomena are defined as issues in modern societies, and the different theoretical approaches employed in the sociology study of social issues. The course then reviews the current theories, research and state of knowledge on a selective range of social issues. The course finishes up with a discussion of social policy and society's response to social problems.

[52L]

*Prerequisite:* SOC101Y

**SOC205Y5 Urban Sociology**

Examines the city both as a significant development in world civilization and a working mechanism guided by contemporary policies. Studies human behaviour in its multifaceted relations with the urban environment. [52L]

*Prerequisite:* SOC101Y

**SOC206Y5 Social Organization**

Classical and recent theories specifying the organizational bases of different types of society. These are applied comparatively through empirical studies of selected topics.

[52L]

*Prerequisite:* SOC101Y

**SOC207Y5 Sociology of Work and Occupations**

The course begins with an overview of those historical forces that gave rise to the industrial state and the occupational structure nourished by it. Managerial ideologies that seek to legitimize superordination and subordination within this system are reviewed—Taylorism and Human Relations to name but two. The role of technology in the workplace, occupational choice and occupational socialization are then reviewed. Role conflict in white-collar occupations, trait and power approaches to the professions and cross-cultural examination of the Japanese work environment will round out lecture presentations. [52L]

*Prerequisite:* SOC101Y

## **SOC208H5 Sociology of Film**

The mutual influence between films and society and the last century of film as a case study for examining modes of media production and reception. The societal-, industry- and organizational-level factors that have shaped film formats and content and in turn consider work on the social effects of film. [26L]

*Prerequisite:* SOC101Y

## **SOC210Y5 Ethnicity in Social Organization**

Impact of racial, ethnic, and linguistic heterogeneity and of various patterns of immigration on economic, political, and cultural institutions, and on individual identity, self-conceptions, social attitudes, and relations. [52L]

*Prerequisite:* SOC101Y

## **SOC211H5 Deviance and Social Control**

A sociological analysis of deviant behaviour that examines theories of its genesis, social definition, maintenance, control, and social consequences. [26L]

*Exclusion:* SOC212Y

*Prerequisite:* SOC101Y

## **SOC214Y5 Sociology of Families**

Development of the contemporary western family with special emphasis on changing relations among its members. [52L]

*Prerequisite:* SOC101Y

## **SOC215Y5 Socialization**

The acquisition and reproduction of personality, culture, and social structure. Topics will include socialization and the socio-biology debate, psycho-social, cognitive, and behaviouristic approaches to human development, child-rearing practices, sex-role acquisition and learning, structural influences on values, attitudes and aspirations, political socialization, adult socialization and aging, and the comparative study of socialization. [52L]

*Prerequisite:* SOC101Y

## **SOC216H5 Sociology of Law**

Major theoretical and substantive debates in the sociology of law. How race, gender and social inequality shape legal institutions, the law and the broader social context. [26L]

*Exclusion:* SOC213Y

*Prerequisite:* SOC101Y, 211H

## **SOC220Y5 Canadian Society**

This course employs classical Canadian social science works to investigate the central themes of the Canadian experience and then links these themes to the contributions of contemporary scholars. [52L]

*Prerequisite:* SOC101Y

## **SOC252H5 Communication Theory and Research**

(Formerly SOC252Y)

An introduction to a variety of theories and empirical methods used to describe and explain verbal and non-verbal forms of communication. The course will cover aspects of interpersonal, literate and electronic communication and provide a solid background for courses offered at higher levels in the area of communications. [26L]

*Exclusion:* SOC152Y

*Prerequisite:* SOC101Y

## **SOC277Y5 Globalization**

The origin, structure and dynamics of the world as a global system. Population, settlement patterns, nations, the state, politics, war, law, human rights, the global economic system, environment, organizations, cyberspace, post modernity. [52L]

*Prerequisite:* SOC101Y

## **SOC284H5 Communication and Ethics**

(Formerly: SOC384Y)

This course examines the different ways that the flow and the content of information are controlled by various agencies, as well as the effects of censorship, or lack of it, on society. [26L]

*Prerequisite:* SOC101Y

**SOC299Y5 Research Opportunity****Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

**SOC300Y5 Quantitative Analysis**

An introduction to data analysis which emphasizes understanding rather than mathematics, exploratory techniques (how to look for hypotheses); corresponding confirmatory techniques (how to test hypotheses). Basic analysis of variance, regression, chi-square; tables and graphs. [52L]

*Exclusion:* Any Statistics (STA) courses; BIO360H, 361H; ECO220Y; PSY201H, 202H

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level, (SOC200Y is highly recommended)

**SOC301Y5 Social Inequality**

Examines the causes, prevalence and manifestations of social, political and economic inequalities, internationally and within Canada. Particular focus is placed on the ascriptive and other characteristics of people that lead to their being victims or beneficiaries of inequality—gender, age, ethnicity-race, social class of their parents, location of residence in Canada, disability. The various circumstances of inequality are examined through multiple theoretical and empirical perspectives. Additional emphasis is placed on the possible means to lessen or eliminate social inequalities. [52L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

**SOC302H5 Sociology of Culture**

The institutional production of art, theories of culture and social structure, cultural consumption and reception, cultural capital, the role of culture in social inequality, symbolic boundaries, culture and identity, cultural fields, discourse analysis, and change in art worlds and aesthetics. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

**SOC303H5 Careers in Crime and Delinquency**

An examination of delinquent and criminal life-styles from the perspectives of social psychology, the sociology of occupations, and the sociology of law. The etiology, social history, organization, and societal response to different types of crime and delinquency are considered. Special attention is given to the career criminal. [26L]

*Prerequisite:* SOC101Y, 211H

**SOC304Y5 Change and Conflict in Contemporary Society**

The sociological aspects of the world economy and state system in historical perspective. Institutional and social bases of markets, especially land, labour, and money. Patterns of state formation, including colonialism, national states. Evaluation of conceptual frameworks, such as first/second/third world; North/South; capitalist/socialist; and national/transnational. Contemporary changes in agriculture and industry. Special emphasis on gender, race, and class relations. [52L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

**SOC305H5 Sociology of Religion**

Various theories of religious behaviour and organization are examined with special attention given to the role of religion in relation to social change and social integration. Current research and methods of study will be stressed. [52L]

*Exclusion:* SOC306Y

*Prerequisite:* SOC101Y, 1.0 SOC course at 200 level

**SOC307H5 Crime and Delinquency**

Definitions and sociological explanations of crime and delinquency. Social background of Canadian criminal law; the role of police, courts, prisons and other institutions of social control. [26L]

*Exclusion:* SOC306Y

*Prerequisite:* SOC101Y, 211H

## **SOC308Y5 The Canadian Media**

An analysis of both the institutional foundations of Canadian Media, as well as several Canadian theorists/empiricists such as Innis, McLuhan and Grant. Historical development of Canadian media including book publishing, radio, film, television and computer technologies and the constraints on such industries will be discussed. The role of censorship boards, public and private broadcasting, bilingual and multilingual media may also be presented for analysis.

[52L]

*Exclusion:* SOC308H

*Prerequisite:* SOC 101Y, 1.0 SOC course at the 200 level

## **SOC309H5 Sociology of Mass**

### **Communication**

(Formerly SOC309Y)

The course critically appraises some modern communications theorists - and dissects some old and new Canadian media institutions. Special emphasis on the origin and destiny of innovation, governmental media organizations and their articulation with media institutions. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

## **SOC310H5 Youth in Conflict with the Law**

The youth criminal justice system in Canada. Topics include historical and contemporary shifts in the youth justice system, young offender legislation, public perceptions and media representations of juvenile delinquency, current research and theories on youth crime and crime prevention strategies. Particular attention is paid to the treatment of specific groups. [26L]

*Prerequisite:* SOC101Y, 211H

## **SOC311Y5 Sociology of Education**

An analysis of the relationship between education and society in comparative perspective; the consequences of the internal structure of educational systems; and current controversies surrounding the function and structure of educational institutions. [52L]

*Prerequisite:* SOC101Y, 1.0 SOC course at 200 level

## **SOC312Y5 Population and Society**

An analysis of various components of population change from both global and Canadian perspectives. Topics may include population size, age-sex structure, territorial distribution, fertility, mortality, and migration. Population structure and dynamics are examined relative to social, economic, political, and cultural elements of change in the developing and developed world. [52L]

*Prerequisite:* SOC101Y, 200Y/300Y

## **SOC314Y5 Classical and Contemporary Sociological Theory**

This course is a survey of the classical nineteenth-century tradition including the works of Auguste Comte, Karl Marx, Emile Durkheim, and Max Weber for example as well as of some twentieth-century schools of social theory. [52L]

*Exclusion:* SOC313Y, 203Y(G)

*Prerequisite:* SOC101, 1.0 SOC course at the 200 level

## **SOC316H5 Crime Prevention and Security**

The growth of political, economic, community and academic interest in crime prevention and security. How segments of society or particular physical sites are constructed as security risks in need of regulation. The regulation of security, including crime prevention, community safety, risk reduction and surveillance. These issues are then examined in relation to specific empirical developments such as private policing, restorative justice, community policing and gated communities. [26L]

*Prerequisite:* SOC101Y, 211H

## **SOC317Y5 Industrial Sociology**

This course will survey the classical theories of industrial society as well as some of the more recent theories. A series of specific, pertinent issues will then be addressed.

[52L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level/ECO244Y

**SOC318Y5 Social Policy**

This course is about the development, implementation and evaluation of policies designed to improve the well-being of Canadians in fields such as health, education, housing and social security. The topics chosen may vary from year to year and on-site research may be a requirement. It should be of interest not only to those planning a career in social services but also to those with an interest in going beyond description and explanation in sociology to the "oughts" and the process of getting from here to there. [52L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

**SOC319Y5 Gene Culture Coevolution**

Some recent developments in social theory are examined with particular emphasis placed on three evolutionary processes: 1) biological evolution; 2) the "evolution" of behaviour in individual life cycles (individual learning); and 3) sociocultural transmission and evolution; and how these three processes are thought to interact with and affect each other to produce human social behaviour. [52L]

*Prerequisite:* ANT100Y/SOC101Y; BIO101Y/151Y/(152H,153H)/PSY100Y, 1.0 SOC course at the 200 level

**SOC321H5 Social Research Methods II: Techniques and Applications**

Theoretical and applied problems in research design, sampling and measurement with emphasis on survey research. [26L]

*Prerequisite:* SOC101Y/BIO101Y/151Y/(152H,153H)/PSY100Y, SOC200Y

**SOC322H5 Social Statistics II: Techniques and Applications**

The understanding and application of multivariate analysis using computers in the survey research environment. [26L, 13P]

*Prerequisite:* SOC101Y, 300Y

*Recommended Prerequisite:* SOC200Y

**SOC323H5 Law and Society**

This course is primarily concerned with the relationship between legal, social and moral regulation. The law can either promote social change or defend the status quo. Most of us believe that the law reinforces certain social values (justice, rights, equality and fairness). This course critically assesses the extent to which law embodies these values, and how these values are challenged by different segments of society. The course will outline key debates about the power of law and legal governance. [26L]

*Prerequisite:* SOC101Y, 211H

**SOC324H5 Politics and Society**

(Formerly SOC324Y)

This course will introduce students to classic and contemporary views on power and the social basis of politics. We will also discuss the role of social movements. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course other than SOC200Y.

**SOC329H5 Collective Behaviour**

An analysis of non-conventional social action as seen in crowd and mass behaviour (panics, riots, demonstrations, crazes, etc.) involving a study of relationships between forms of collective action and the more conventional order, i.e., the relationship of collective behaviour to social action and control, stability and change. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

**SOC332H5 Race and Ethnicity I**

This course will engage the historical roots of racism primarily in the Americas, including the various diasporas to the Americas. [26L]

*Exclusion:* SOC330H

*Prerequisite:* SOC101Y, 1.0 SOC course other than SOC200Y.

**SOC333H5 Race and Ethnicity II**

This course will cover contemporary debates on overcoming racism, such as affirmative action, multi-racialism, federalism, social movements. [26L]

*Exclusion:* SOC330H

*Prerequisite:* SOC101Y, 332H, 1.0 SOC course other than SOC200Y

## **SOC335Y5 The Language of Conflict**

The study of conflict and its enactment in various micro-social settings (family, educational, work-place, leisure, etc.) with special emphasis on identification, typification, strategies of participation in conflict as it really occurs in natural settings and on different social occasions. Theorizing on conflict as a social occurrence, based on material collected in real life situations.

[52L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

## **SOC346Y5 Society, Organization, and the Individual**

An analysis of formal organizations, e.g., hospitals, prisons, schools, business firms, government agencies, etc., focusing upon their structural characteristics, effects of social environments, and the influence upon their members. [52L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level/ECO244Y

## **SOC347H5 Sociology of Aging**

An examination of theories and practices regarding demographic, economic, and social processes of aging as they affect individuals, families, and societies. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

## **SOC348H5 Sociology of Development**

An investigation of various theories and models of economic development and examination of social consequences of development. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

## **SOC349H5 Sociology of Food**

Sociological analysis of food in global, regional and intimate contexts. It links cultural and structural aspects of the food system, historically and in the present.

Students will investigate and report on intercultural food practices in Canada. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

## **SOC352H5 Society and Nature**

Relationship between social institutions and ecology. Models of growth, critical approaches and alternative. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

## **SOC353H5 Sociology of the Global System Since 1945**

Changes in international and transnational organizations with decolonization, Cold War and after, development and globalization. Attention to class, race, gender, and environment. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

## **SOC354H5 Global Sociology**

Approaches to transnational networks, structures and processes, such as diasporic networks, transnational corporations, and social movements. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

## **SOC365H5 Gender Relations**

(Formerly SOC365Y)

The roles and statuses of women and men. Theoretical explanations for gender inequality (materialist, idealist, interactionist). Historical patterns of gender relations in family, work, and other social contexts. Contemporary changes in patterns of paid and domestic labour, parenting, sexuality, and state services. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level

## **SOC368H5 Sociology of Sex and Sexuality**

A discussion of social responses to sex and sexuality in the past and in contemporary society. Cross cultural, legal, political and social movement responses to issues concerning sex and sexuality are explored. [26L]

*Prerequisite:* SOC101Y, 1.0 SOC course at the 200 level.

**SOC371H5 Sociology of Punishment**

Punishment cannot be analyzed outside of its historical, cultural, economic, political and social context. This course offers students a critical, multidisciplinary approach to the study of punishment in Canadian society.

[26L]

*Prerequisite:* SOC101Y, 211H

*Recommended Preparation:* SOC307H is also highly recommended and may be taken concurrently.

**SOC387H5 Qualitative Analysis I**

This is a practical course in which students gain experience in specific field work and/or historical methods. Students design, use, and evaluate research instruments. Students monitor and discuss their responses to all aspects of the research process, and (depending on the topic) may gain experience in working on a research team.

[26L]

*Prerequisite:* SOC101Y, 200Y

**SOC388H5 Qualitative Analysis II**

This course deepens student experience with methods introduced in SOC387H and/or introduces students to other aspects of qualitative methods: interviews, field work or historical methods. Students will design (or revise), use, and evaluate research instruments. Students monitor and discuss the research process in more depth. Team work will be encouraged where appropriate.

[26L]

*Prerequisite:* SOC101Y, 200Y, 387H

**SOC390Y5/391H5/392H5 Independent Research**

To enrol, a student must submit a specific proposal and obtain the approval of both the instructor and the Faculty Advisor. Intended for Sociology Specialists and Majors who have completed ten university courses, i.e., are in third year, and who wish to explore in depth a particular subject area in Sociology. Students must have completed or be taking concurrently the required method and theory courses (SOC200Y/300Y, 314Y, or their equivalent), and have attained a B average in SOC courses. Students may take a maximum of two full courses, or equivalent, of independent studies. Not more than one full course or equivalent may be taken with the same instructor.

**Note:**

Seminar courses are for Sociology Specialists, Majors and Crime and Deviance Majors who have completed a minimum of 8.0 credits. The content of senior seminars may vary from year to year. See Faculty Advisor for availability and information.

**SOC410H5 Senior Seminar in Sociology I**

Restricted to Sociology Majors and Specialists who have completed at least 8.0 credits and SOC200Y/300Y. Topics will vary from year to year, see Department for details. [26S]

**SOC411H5 Senior Seminar in Sociology II**

Restricted to Sociology Majors and Specialists who have completed at least 8.0 credits and SOC200Y/300Y. Topics will vary from year to year, see Department for details. [26S]

**SOC420H5 Senior Seminar in Crime and Deviance I**

Restricted to Crime and Deviance Majors who have completed at least 8.0 credits and SOC200Y/300Y. Topics will vary from year to year, see Department for details. [26S]

**SOC421H5 Senior Seminar in Crime and Deviance II**

Restricted to Crime and Deviance Majors who have completed at least 8.0 credits and SOC200Y/300Y. Topics will vary from year to year, see Department for details. [26S]

**SOC431H5 Negotiation and Nonviolence**

Violence is a means of reaching decisions in conflicts. Here alternative means are reviewed; e.g. mediation, brainstorming, strikes, petitions, spray-painting protests, fasting, or hugging trees to prevent their being felled. Negotiating practice and films on nonviolent sanctions, e.g., Gandhi, Martin Luther King, Jr. and Solidarnosc.

[26L, 13T]

*Prerequisite:* SOC231Y/314Y

**SOC490Y5/491H5/492H5 Independent Research**

Open only to students who have completed fifteen university courses, i.e., are in fourth year, and have a B average in SOC courses. For other requirements and restrictions, see SOC390Y/391H/392H.

**Statistics***Professors:*

L.J. Brunner, B.A., Ph.D., M.A., Ph.D.

T. Duchesne, B.Sc., M.Sc., Ph.D.,  
A.S.A.

O. Fraser, B.Com., M.Sc.

A. Weir, B.Sc., M.Sc., Ph.D.

*Discipline Representative:*

Prof. L.J. Brunner  
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*Undergraduate Advisor:*

Dr. A. Weir  
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Numbers are all around us. From the thickness of the ozone layer to infant mortality rates, from the cost of beer to the chances of contracting AIDS, the world is permeated with quantity. Most of the quantitative information we have is incomplete, or an estimate, or an average, or the result of inexact measurement. This does not mean the information is useless. What it means is that to consider yourself well educated, you must be able to extract knowledge from numerical data that are subject to random error.

This is the goal of modern statistics. The word "statistics" has the same root as "state," and originally statistics referred to compilations of numbers about the state – what we would call census data. In recent times, this enterprise has been united with mathematical probability theory, producing a modern science of decision making under conditions of uncertainty. Statisticians do things as diverse as setting insurance rates, testing new drugs, estimating levels of air and water pollution, monitoring the quality of industrial products, and predicting the outcomes of national elections.

Mark Twain once said "There are lies, damned lies, and statistics." It is true that in the hands of the unscrupulous or ill-informed, statistical methods can be seriously misleading – but only to a naive audience. Learn statistics or be vulnerable.

**STA107H5(I) Introduction to Probability and Modelling**

A theoretical introduction to probability with emphasis on the construction of discrete probability models for applications. Topics covered include randomness and aspects of its representation, random variables, Venn diagrams, discrete probability distributions, expectation and variance, independence, conditional probability, the central limit theorem and applications to the analysis of algorithms and simulating systems such as queues. [26L, 13T]

*Exclusion:* STA257H, 352Y(G); ECO227Y

*Corequisite:* MAT132Y/138Y

**STA220H5(I) Statistics**

Acquaints students with the fundamentals of statistics. The course discusses statistical procedures for describing large quantities of data and for making inferences about populations on the basis of samples. [26L, 13T]

*Exclusion:* STA202H, 222Y(G), 248H, 250H, 302H, 332H; BIO360H; ECO220Y, 227Y; PSY201H; SOC300Y

**STA221H5(I) Application of Statistics**

A continuation of STA220H, including an introduction to non-parametrics, analysis of variance and linear regression. [26L, 13T]

*Exclusion:* STA212H, 222Y(G), 248H, 250H, 302H, 332H; BIO361H; ECO220Y, 227Y; PSY202H; SOC300Y

*Prerequisite:* STA220H

**ACT240H5 Mathematics of Investment and Credit**

Interest, discount and present values, as applied to determine prices and values of annuities, mortgages, bonds, equities; loan repayment schedules and consumer finance payments in general; yield rates on investments given the costs on investments. [26L, 13T]

*Prerequisite:* MAT132Y/138Y

**ACT245H5 Fundamental Principles of Actuarial Science**

Introduction to basic concepts of risk management; utility theory; application of calculus and probability to analyze claim and frequency and severity of distributions; premium determination; insurance with deductible, reinsurance and self-insurance. [39L, 13T]

*Prerequisite:* STA257H/ECO227Y; MAT138Y/232H

**STA248H5 Statistics with Probability**

A survey of statistical methodology with emphasis on data analysis and applications. Topics covered include descriptive statistics, data collection, design of experiments, tests of significance, confidence intervals, power, multiple regression, analysis of variance, and count data. A statistical computer package will be used. [39L, 13T]

*Exclusion:* STA220H, 221H, 302H, 332H; ECO220Y; PSY201H; SOC300Y; BIO360H

*Prerequisite:* STA257H

**STA257H5 Probability and Statistics I**

A calculus-based development of probability models. Topics include distribution functions, probability and density functions, random variables, conditional probability, expectation, the Weak and Law of Large Numbers, the Central Limit Theorem, and sampling distributions related to the normal distribution. [39L, 13T]

*Exclusion:* STA255H(G), 352Y(G); ECO227Y

*Prerequisite:* MAT132Y/138Y

*Note:* MAT232H is strongly recommended.

*Note:* MAT133Y is not accepted as a prerequisite.

**STA261H5 Probability and Statistics II**

A sequel to STA257H giving a calculus-based introduction to estimation, hypothesis testing and confidence intervals. Topics include unbiasedness, consistency, sufficiency, and likelihood. [39L, 13T]

*Exclusion:* STA242Y, 262Y, 352Y(G); ECO227Y

*Prerequisite:* STA257H

## **STA299Y5 Research Opportunity Program**

Credit course for supervised participation in faculty research project. See page 98 for details.

## **STA302H5 Regression Analysis**

Simple and multiple linear regression, hypothesis testing and interval estimation, regression diagnostics and remedial measures, polynomial regression, qualitative independent variables, model building, detection of autocorrelation in time series data. Computer packages are used.

[26L, 13T]

*Exclusion:* ECO327Y

*Prerequisite:* STA261H/ECO227Y;

MAT222H/248Y

*Note:* STA248H is highly recommended.

## **STA312H5/313H5 Topics in Statistics**

Introduction to a topic of current interest in statistics. Content will vary from year to year. Computer packages are used.

[26L, 13T]

*Prerequisite:* STA302H/ECO327Y

Offered in alternate years.

## **STA322H5 Design of Sample Surveys**

Designing samples for valid inferences about populations at reasonable cost:

stratification, cluster/multistage sampling, unequal probability selection, ratio estimation, control of non-sampling errors, (e.g., non-response, sensitive questions, interview bias). [26L, 13T]

*Prerequisite:* STA221H/248H/250H/261H/BIO361H/ECO220Y/227Y/PSY202H/SOC300Y

Offered in alternate years.

## **STA332H5 Experimental Design**

Statistical issues in the design of experiments and the collection of data. Analysis of variance, randomization, factorial designs, blocking, confounding, higher-way tables. [26L, 13T]

*Exclusion:* STA402H(UTM)

*Prerequisite:* STA302H/ECO327Y

## **STA347H5 Probability and Applications**

Probability spaces and random variables, conditional probability, characteristic functions, limit laws. Application of common probability distributions.

Introduction to stochastic processes.

[26L, 13T]

*Prerequisite:* STA257H/ECO227Y

Offered in alternate years.

## **STA412H5 Estimation and Testing**

Basic theory of estimation and hypothesis testing. (This course emphasizes abstraction and rigour.) [26L, 13T]

*Prerequisite:* STA261H/ECO227Y

Offered in alternate years.

## **STA437H5 Applied Multivariate Statistics**

Practical techniques for the analysis of multivariate data  $T^2$  tests, tests of means, simultaneous confidence bounds, profile analysis. Multivariate analysis of variance, regression, correlation, growth curve models, data reduction, principal component analysis, discriminant analysis. Computer packages are used. [26L, 13T]

*Prerequisite:* STA332H/ECO327Y

Offered in alternate years.

## **STA442H5 Methods of Applied Statistics**

Advanced topics in statistics and data analysis with emphasis on applications.

Topics might include diagnostics and residuals in linear models, introduction to generalized linear models, computer intensive methods, analysis of censored data, structural equation models. Class meetings and assignments may overlap with those of PSY305H. [26L, 13T]

Offered in alternate years.

## **STA457H5 Time Series Analysis**

Methods of modelling and forecasting with time series. Autocorrelation functions.

Autoregressive, moving average, and ARIMA models. Comparison of time and frequency domain approaches. Computer packages are used. [26L, 13T]

*Prerequisite:* STA302H/ECO327Y

Offered in alternate years.

## Visual Culture and Communication

### VCC302H5 Visual Culture through the Post-Colonial Lens

Study of visual culture (western and non-western) from the post-colonial perspective: cultural specificity of aesthetic and other visual codes (advertising, internet), implications for globalization of visual culture, critiques of Western visual "power" and hegemony. [26L, 13T]

*Prerequisite:* CCT201H/FAH201H

### VCC304H5 Visual Culture and the Construction of Identity

The critical role of images in the West in defining identity and community since the 19<sup>th</sup> century. Drawing upon diverse media (photography, film, television, internet), course investigates the role of visual culture in constructing identities and identifications such as the self, family, nation, religion, gender, class, ethnicity, and globalicity. [26L]

*Prerequisite:*

CCT200H/201H/FAH201H/PSY321H/P.I.

### VCC306H5 Gender and Visual Representation

Study of histories and theories of gender in relationship to the visual arts/culture (examples from traditional media, photography, film, advertising, television, the internet). Emphasis on major figures and ideas in feminist theory, psychoanalysis, Marxist and neo-Marxist criticism. Course treats theories of power, gender, and visual culture in historically specific ways. [26L, 13T]

*Prerequisite:* CCT201H/FAH201H/P.I.

*Recommended Preparation:* ERI200Y

### VCC400H5 Advanced Project

A survey of advanced topics related to VCC. Students will also develop skills in writing a critical analysis of a selected issue in VCC. Limited to VCC students. [39S]

*Prerequisite:* CCT201H/FAH201H, completion of 13.0 credits.

### VCC403H5 Contemporary Asian Visual Culture

Aesthetic, social, political, and cultural dynamics of burgeoning Asian film, animation and digital media production. Considers traditional national discourses (Japan, China, Korea) as well as emergence and transformation of media in transnational and diasporic contexts. [26S]

*Prerequisite:* CCT201H/FAH201H, plus 1.0 credit in VCC/FAH at 300/400 level, or P.I.

*Recommended Preparation:* VCC302H

### VCC405H5 Individual Project

A research project carried out under the supervision of a faculty member. Students will carry out a research project on a selected topic related to VCC. Students must obtain signed permission from the faculty member who they would like to have as their supervisor.

*Prerequisite:* Completion of 13.0 credits and CCT400H (Advanced Project)

*Enrolment is limited*

### VCC411H5 Real Space to Cyberspace

Traditional conceptions of and re-conception of architecture and space -- public and private -- brought about by digital technology. Impact of western versus non-western notions of space on conception of political, social, and inner life; impact of new technologies (hyperspace, virtual reality) on real space, and imagined space in western and non-western world. [26S, 13P]

*Prerequisite:* FAH105H; CCT201H/FAH201H plus at least 1.0 credit in VCC or P.I.

### VCC412H5 The Corporate Eye

Course sets visual culture of modern corporate capitalism in historical and theoretical framework. Historical formations (rise of corporations, modern management systems, organizational behaviour) are read in relation to their manifestations in a corporate visual culture (public relations, advertising, corporate architectures/landscapes). Theoretical readings include Foucault, Gramsci, Adorno, Hall. [26S]

*Prerequisite:* CCT201H/FAH201H

*Recommended Preparation:* HIS271Y

**VCC415H5 Theory and Criticism of Photography and New Media**

Introduces a variety of approaches for interpreting, criticizing, evaluating, and theorizing photographs and photography in general. Examines how the thinking of photography is revised via major theoretical models. Concludes with a unit on theory and criticism of New Media. [26S]  
*Prerequisite:* CCT201H/FAH201H/388H, 1.0 credit in VCC/FAH at 300/400 level, or P.I.

**VCC425H5 Art and Media Culture**

Explores intersection of art, pop culture and mass media in Europe and North America between World War II and 1970. Reviews how the definition of art moved into an expanded field of media culture. Examines key movements (e.g., Pop, Fluxus, Situationism) to ascertain artistic practice in the age of media culture. [26S]  
*Prerequisite:* CCT201H/FAH201H/289H, plus 1.0 credit in VCC/FAH at 300/400 level, or P.I.

**Women's/Gender Studies****ERI200Y5 Introduction to Women's/Gender Studies**

(For description see Erindale courses.)

**ERI300Y5 Feminisms and Related Liberatory Movements**

(For description see Erindale courses.)

**ERI410H5 Independent Project in Women's/Gender Studies**

(For description see Erindale courses.)

**ERI411Y5 Independent Project in Women's/Gender Studies**

(For description see Erindale courses.)

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**Woodsworth College****WDW260H5 Organizational Behaviour**

Introduction to the nature of organizations and the behaviour of individuals and groups within organizations, including such topics as culture and diversity, reward systems, motivation, leadership, politics, communication, decision-making, conflict, group processes and organizational change. Not recommended for students in Commerce programs. [39L]

*Exclusion:* MGT262H, WDW260Y

*Prerequisite:* 4.0 credits and CGPA of at least 2.0

## Policy on Access to Student Academic Records

### 1. Preamble

- (a) Academic records of students are ultimately the property of the University, and it is the responsibility of the University to establish overall University policy in this area. This policy establishes university-wide aims, objectives, criteria and procedures which shall apply to the academic records of students of academic divisions of the University.
- (b) The purpose of this policy is to combine consistency with flexibility in such a way as to ensure that:
- (i) Students, alumni and former students are allowed as great a degree of access to their own academic records as is academically justifiable and administratively feasible.
  - (ii) A student's right to privacy in relation to his or her academic records is safeguarded as far as both internal university access and external public access are concerned.
  - (iii) There will be basic university-wide consistency in the kinds of information collected, recorded, filed and made available.
  - (iv) In keeping with the pluralistic nature of the University, academic divisions may retain some flexibility in the implementation and application of the policies established within this document.
- (c) Individual divisional regulations and procedures on access to student academic records, including the statement in the divisional calendar concerning such, shall be reported by the Provost to the Committee on Academic Policy and Programs. Any subsequent revisions shall also be reported.
- (d) This policy supersedes the 1979 access policy for undergraduate student records and the 1981 access policy for graduate student records.

### 2. For the purposes of this policy:

- (a) "student" means any person registered at the University for full-time or part-time study in a program that leads to a degree or post-secondary diploma or certificate of the University or in a program designated as a program of post-secondary study at the University by the Governing Council or other University body having delegated authority. On the date of an enquiry or request relevant to this policy, persons who have been registered within a period of two calendar years shall be included in the provisions that relate to "students".
- (b) "alumnus" or "alumna" means any person who has received a degree or post-secondary diploma or certificate from the University, or any person who has completed one year of full-time studies or the equivalent thereof as determined by the Governing Council, towards such a degree, diploma or certificate, and is no longer registered at the University.
- (c) "former student" means any person who is not a student or an alumnus or alumna who has been registered at the University in a program as defined in Section 2 (a), and is no longer registered at the University.
- (d) "academic division" means a college, school, institute, faculty or other division of the University that has academic autonomy (i.e., the right to administer its own degrees, diplomas, certificates and other programs of study), subject only to the authority of the Vice-President and Provost, the President and the Governing Council.

### 3. Definition of the Official Student Academic Records

The "official student academic record" refers to information relating to a student's admission to and academic performance at this University. The "official student academic record" shall contain:

- (a) (i) Personal information which is required in the administration of

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- official student academic records such as name, student number, citizenship, social insurance number.
- (ii) Registration and enrolment information.
- (iii) Results for each course and academic period.
- (b) (i) Narrative evaluations of a student's academic performance used to judge his or her progress.
- (ii) Basis for a student's admission, such as the application for admission and supporting documents.
- (iii) Results of petitions and appeals filed by a student.
- (iv) Medical information relevant to a student's academic performance which has been furnished at the request or with the consent of the student concerned.
- (v) Letters of reference, whether or not they have been provided on the understanding that they shall be maintained in confidence.
- (vi) Personal and biographical information such as address and telephone number.
- The "official student academic record" shall be maintained by the University. For each type of information, academic divisions shall designate which document, form or medium contains the official version and how official copies of such information will be identified.
- 4. Access to Official Student Academic Records**
- (a) *Access by a Student*
- (i) Students may examine and have copies made of their official student academic record as defined above, with the exception of those portions of the record which comprise letters of reference which have been provided or obtained on the expressed or implied understanding that they shall be maintained in confidence. A student may, however, be advised of the identity of the authors of any confidential letters contained in his or her official academic record.
- (ii) Students' requests to examine a part of their "official student academic record" shall be made in writing and shall be complied with within 30 days of receipt of the request.
- (iii) Students may challenge the accuracy of their official student academic record with the exception of the material specifically excluded above and may have their record supplemented with comments so long as the sources of such comments are identified and the official student academic record remains securely within the custody of the academic division. Reference to such comments would not necessarily appear on reports such as transcripts or statements of results.
- (iv) It is assumed that all documents relating to petitions and appeals and not provided on the understanding that they shall be maintained in confidence will be retained within a division, and when needed by a student, will be made freely available. In addition, The Statutory Powers Procedure Act, 1971 of Ontario requires that where the good character, propriety of conduct or competence of a party is in issue in any proceedings in a tribunal to which the Act applies (such as the Academic Appeals Board of the Governing Council), the party is entitled to be furnished prior to the hearing with "reasonable information" of any allegations with respect thereto.
- (b) *Access by Alumni and Former Students*
- (i) An alumnus or alumna or a former student may examine and have copies made of the portion of his or her official student academic record as defined in Section 3(a) above.
- (ii) A request from an alumnus or

- alumna or a former student to examine the portion of the official student academic record as defined in Section 3(a) shall be made in writing and shall be complied with by the responsible authorities within a division. Such compliance shall occur within 30 days of receipt of the request, or within such lesser period as a division may determine.
- (iii) An alumnus or alumna or a former student shall have the right to challenge the accuracy of his or her official student academic record only under such terms and conditions as the academic division may determine and publish in the divisional calendar.

**(c) Access by University Staff and Members of Official University and Divisional Councils and Standing Committees**

Members of the teaching and administrative staff of the University shall have access to relevant portions of an official student academic record for purposes related to the performance of their duties.

Access to medical information shall only be granted to members of the teaching and administrative staff with the prior expressed or implied consent of the student and, if applicable, in the case of a medical assessment, the originator (physician, etc.) of such.

The Department of Alumni and Community Relations shall have access to appropriate personal information on students and alumni for the purpose of maintaining contact with alumni.

**(d) Access by University Campus Organizations**

Recognized campus organizations in the University of Toronto shall have access to all information available freely to persons outside the university and to the sessional address and telephone number of students for the legitimate internal use of that organization.

**(e) Access by Others**

- (i) By the act of registration, a student gives implicit consent for a minimal amount of information to be made freely available to all enquirers:
- the academic division(s), degree program(s) and the session(s) in which a student is or has been registered,
  - degree(s) received and date(s) of convocation.
- (ii) Any other information shall be released to other persons and agencies only with the student's prior expressed written consent, or on the presentation of a court order, or in accordance with the requirements of professional licensing or certification bodies, or the Ministry of Colleges and Universities for an annual enrolment audit, or otherwise under compulsion of law. A record shall be kept of permissions granted to any persons or agencies outside the University for access to a student's academic record.
- (iii) General statistical material drawn from academic records not disclosing the identities of students may be released for research and informational purposes.

**(f) Refusal of Access**

The University reserves the right to withhold transcripts of students who have outstanding debts.

**5. Custody and Retention of Official Student Academic Records**

Academic records of students are normally under the custodial responsibility of the academic division. Fifty years after a student has ceased to be registered, all such records become the responsibility of the University Archivist and become open to researchers authorized by the University of Toronto.

## Code of Behaviour on Academic Matters

The Governing Council of the University of Toronto has approved a *Code of Behaviour* that sets out clearly the standard of conduct in academic matters expected of members of the University community. The Code is enforced by the Provost and the Disciplinary Tribunal. Below are extracts from the Code, the full text of the Code is available from the Faculty Office and the Office of the Registrar.

### B. ACADEMIC OFFENCES

The University and its members have a responsibility to ensure that a climate that might encourage, or conditions that might enable, cheating, misrepresentation or unfairness not be tolerated. To this end all must acknowledge that seeking credit or other advantages by fraud or misrepresentation, or seeking to disadvantage others by disruptive behaviour is unacceptable, as is any dishonesty or unfairness in dealing with the work or record of a student.

#### B.I.

1. It shall be an offence for a student knowingly:
  - (a) To forge or in any other way alter or falsify any document or evidence required by the University, or to utter, circulate or make use of any such forged, altered or falsified document, whether the record be in print or electronic form;
  - (b) To use or possess an unauthorized aid or aids or obtain unauthorized assistance in any academic examination or term test or in connection with any other form of academic work;
  - (c) To personate another person, or to have another person personate, at any academic examination or term test or in connection with any other form of academic work;
  - (d) To represent as one's own any idea or expression of an idea or work of another in any academic examination or term test or in connection with any other form of academic work, i.e., to commit plagiarism (for a more

detailed account of plagiarism, see Appendix "A" in full text of the Code);

- (e) To submit, without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course or program of study in the University or elsewhere;
  - (f) To submit any academic work containing a purported statement of fact or reference to a source which has been concocted.
2. It shall be an offence for a faculty member knowingly:
    - (a) To approve any of the previously described offences;
    - (b) To evaluate an application for admission or transfer to a course or program of study by reference to any criterion that is not academically justified;
    - (c) To evaluate academic work by a student by reference to any criterion that does not relate to its merit, to the time within which it is to be submitted or to the manner in which it is to be performed.
  3. It shall be an offence for a faculty member and student alike knowingly:
    - (a) To forge or in any other way alter or falsify any academic record, or to utter, circulate or make use of any such forged, altered or falsified record, whether the record be in print or electronic form;
    - (b) To engage in any form of cheating, academic dishonesty or misconduct, fraud or misrepresentation not herein otherwise described, in order to obtain academic credit or other academic advantage of any kind.
  4. A graduate of the University may be charged with any of the above offences committed knowingly while he or she was an active student, when, in the opinion of the Provost, the offence, if detected, would have resulted in a sanction sufficiently severe that the degree would not have been granted at the time that it was.

## B.II. Parties to Offences

1. (a) Every member is a party to an offence under this Code who knowingly:
  - (i) actually commits it;
  - (ii) does or omits to do anything for the purpose of aiding or assisting another member to commit the offence;
  - (iii) does or omits to do anything for the purpose of aiding or assisting any other person who, if that person were a member, would have committed the offence;
  - (iv) abets, counsels, procures, or conspires with another member to commit or be a party to an offence; or
  - (v) abets, counsels, procures, or conspires with any other person who, if that person were a member, would have committed or have been a party to the offence.
- (b) Every party to an offence under this Code is liable upon admission of the commission thereof, or upon conviction, as the case may be, to the sanctions applicable to that offence.
2. Every member who, having an intent to commit an offence under this Code, does or omits to do anything for the purpose of carrying out that intention (other than mere preparation to commit the offence) is guilty of an attempt to commit the offence and liable upon conviction to the same sanctions as if he or she had committed the offence.
3. When a group is found guilty of an offence under this Code, every officer, director or agent of the group, being a member of the University, who directed, authorized or participated in the commission of the offence is a party to and guilty of the offence and is liable upon conviction to the sanctions provided for the offence.

## C. PROCEDURES IN CASES INVOLVING STUDENTS

At both divisional level and the level of the University Tribunal, the procedures for handling charges of academic offences involving students reflect the gravity with

which the University views such offences. At the same time, these procedures and those that ensure students the right of appeal represent the University's commitment to fairness and the cause of justice.

### C.I.(a) Divisional Procedures

*Note:* Where a student commits an offence, the faculty in which the student is registered has responsibility over the student in the matter. In the case of Scarborough and UTM campuses, the college is deemed to be the faculty.

#### *Not proceedings of Tribunal*

1. No hearing within the meaning of Section 2 of the *Statutory Powers Procedure Act* is required for the purposes of, or in connection with, any of the discussions, meetings and determinations referred to in Section C.I.(a), and such discussions, meetings and determinations are not proceedings of the Tribunal.

#### *Instructor's duties*

2. Where an instructor has reasonable grounds to believe that an academic offence has been committed by a student, the instructor shall so inform the student immediately after learning of the act or conduct complained of, giving reasons, and invite the student to discuss the matter. Nothing the student says in such a discussion may be used or receivable in evidence against the student.
3. If after such discussion, the instructor is satisfied that no academic offence has been committed, he or she shall so inform the student and no further action shall be taken in the matter by the instructor, unless fresh evidence comes to the attention of the instructor, in which case he or she may again proceed in accordance with subsection 2.

#### *Instructor's report to the department chair*

4. If after such discussion, the instructor believes that an academic offence has been committed by the student, or if the student fails or neglects to respond to the invitation for discussion, the instructor shall make a report of the matter to the department chair or through the department chair to the dean. (See also Section C.I.(b)1.)

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## *Dean's or Chair's meeting with student*

5. When the dean or the department chair, as the case may be, has been so informed, he or she shall notify the student in writing accordingly, provide him or her with a copy of the Code and subsequently afford the student an opportunity for discussion of the matter. In the case of the dean being informed, the chair of the department and the instructor shall be invited by the dean to be present at the meeting with the student. The dean shall conduct the interview.

## *Dean's warning; admissions used at a hearing*

6. Before proceeding with the meeting, the dean shall inform the student that he or she is entitled to seek advice, or to be accompanied by counsel at the meeting, before making, and is not obliged to make, any statement or admission, but shall warn that if he or she makes any statement or admission in the meeting, it may be used or receivable in evidence against the student in the hearing of any charge with respect to the offence or alleged offence in question. The dean shall also advise the student, without further comment or discussion, of the sanctions that may be imposed under Section C.I.(b), and that the dean is not obliged to impose a sanction but may instead request that the Provost lay a charge against the student. Where such advice and warning have been given, the statements and admissions, if any, made in such a meeting may be used or received in evidence against the student in any such hearing.

## *No further action*

7. If the dean on the advice of the department chair and the instructor, or if the department chair, on the advice of the instructor, subsequently decides that no academic offence has been committed and that no further action in the matter is required, the student shall be so informed in writing and the student's work shall be accepted for normal evaluation or, if the student was prevented from withdrawing from the course by the withdrawal date, he or she shall be allowed to do so. Thereafter, the matter shall not be

introduced into evidence at a Tribunal hearing for another offence.

## *Imposition of sanction*

8. If the student admits the alleged offence, the dean or the department chair may either impose the sanction(s) that he or she considers appropriate under Section C.I.(b) or refer the matter to the dean or Provost, as the case may be, and in either event shall inform the student in writing accordingly. No further action in the matter shall be taken by the instructor, the department chair or the dean if the dean imposes a sanction.

## *Student may refer matter*

9. If the student is dissatisfied with a sanction imposed by the department chair or the dean, as the case may be, the student may refer the matter to the dean or Provost, as the case may be, for consideration.

## *Referral of matter to Tribunal*

10. If the student does not admit the alleged offence, the dean may, after consultation with the instructor and the department chair, request that the Provost lay a charge against the student. If the Provost agrees to lay a charge, the case shall then proceed to the Trial Division of the Tribunal.

## *Decanal procedures at trial*

11. Normally, decanal procedures will not be examined in a hearing before the Tribunal. A failure to carry out the procedures referred to in this section, or any defect or irregularity in such procedures, shall not invalidate any subsequent proceedings of or before the Tribunal, unless the chair of the hearing considers that such failure, defect or irregularity resulted in a substantial wrong, detriment or prejudice to the accused. The chair will determine at the opening of the hearing whether there is going to be any objection to defect, failure or irregularity.

## *Student's standing pending disposition*

12. No degree, diploma or certificate of the University shall be conferred or awarded, nor shall a student be allowed to withdraw from a course from the time of the alleged offence until the final disposition of the accusation. However, a student shall be

permitted to use University facilities while a decision is pending, unless there are valid reasons for the dean to bar him or her from a facility. When or at any time after an accusation has been reported to the dean, he or she may cause a notation to be recorded on the student's academic record and transcript, until the final disposition of the accusation, to indicate that the standing in a course and/or the student's status is under review. **A student upon whom a sanction has been imposed by the dean or the department chair under Section C.I.(b) or who has been convicted by the Tribunal shall not be allowed to withdraw from a course so as to avoid the sanction imposed.**

*Recording cases; referral to records;  
reporting cases; advice on cases*

13. A record of cases disposed of under Section C.I.(a) and of the sanctions imposed shall be kept in the academic unit concerned and may be referred to by the dean in connection with a decision to prosecute, or by the prosecution in making representations as to the sanction or sanctions to be imposed by the Tribunal, for any subsequent offence committed by the student. Information on such cases shall be available to other academic units upon request and such cases shall be reported by the dean to the Secretary of the Tribunal for use in the Provost's annual report to the Academic Board. The Dean may contact the Secretary of the Tribunal for advice or for information on cases disposed of under Section C.II. hereof.

*Analogy to faculty member*

14. Where a proctor or invigilator, who is not a faculty member, has reason to believe that an academic offence has been committed by a student at an examination or test, the proctor or invigilator shall so inform the student's Dean or Department Chair, as the case may be, who shall proceed as if he or she were an instructor, by analogy to the other provisions of this section.

*Analogy to procedures*

15. In the case of alleged offences not covered by the above and not involving the submission of academic work, such

as those concerning forgery or uttering, and in cases involving cancellation, recall or suspension of a degree, diploma or certificate, the procedure shall be regulated by analogy to the other procedures of this section.

## C.I.(b) Divisional Sanctions

### *Department Chair's duties*

1. In an assignment worth ten percent or less of the final grade, the department chair may handle the matter if:
  - (i) the student admits guilt; and
  - (ii) the assignment of a penalty is limited to at most a mark of zero for the piece of work.

If the student does not admit guilt, or if the department chair chooses, the matter shall be brought before the dean.

### *Sanctions listed*

2. One or more of the following sanctions may be imposed by the dean where a student admits to the commission of an alleged offence:
  - (a) an oral and/or written reprimand;
  - (b) an oral and/or written reprimand and, with the permission of the instructor, the resubmission of the piece of academic work, in respect of which the offence was committed, for evaluation. Such a sanction shall be imposed only for minor offences and where the student has committed no previous offence;
  - (c) assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;
  - (d) assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;
  - (e) denial of privileges to use any facility of the University, including library and computer facilities;
  - (f) a monetary fine to cover the costs of replacing damaged property or misused supplies in respect of which the offence was committed;
  - (g) assignment of a grade of zero or a failure for the course in respect of which the offence was committed;
  - (h) suspension from attendance in a course or courses, a program, an

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academic division or unit, or the University for a period of not more than twelve months. Where a student has not completed a course or courses in respect of which an offence has not been committed, withdrawal from the course or courses without academic penalty shall be allowed.

## Recording on academic transcript

3. The dean shall have the power to record any sanction imposed on the student's academic record and transcript for such length of time as he or she considers appropriate. However, the sanctions of suspension or a notation specifying academic misconduct as the reason for a grade of zero for a course shall normally be recorded for a period of five years.

## Provost's guidelines

4. The Provost shall, from time to time, indicate appropriate sanctions for certain offences. These guidelines shall be sent for information to the Academic Board and attached to the Code as Appendix "C" in full text of the Code. (See "Code of Behaviour on Academic Matters," available in Registrarial Services.)

## Summary of Code of Student Conduct

Non-academic offences are defined in the University's *Code of Student Conduct* (2003), the full text of which may be obtained from the Office of the Registrar. Below are extracts from the code:

### B. OFFENCES

The following offences constitute conduct that shall be deemed to be offences under this *Code*, when committed by a student of the University of Toronto, provided that such conduct:

- (i) has not been dealt with as failure to meet standards of professional conduct as required by a college, faculty or school; and
- (ii) is not specifically assigned to the jurisdiction of the University Tribunal, as in the case of offences described in the *Code of Behaviour on Academic Matters*, or to another disciplinary body within the University of Toronto, as in the case of sexual harassment as described in the *Policy and Procedures: Sexual*

*Harassment*; (Ontario Human Rights Code) or to a divisional disciplinary body, such as a residence council or a recreational athletics disciplinary body; or is covered under these policies but which is deemed by the head of the division to be more appropriately handled by the *Code of Student Conduct*; and

- (iii) except as otherwise provided herein, occurs on premises of the University of Toronto or elsewhere in the course of activities sponsored by the University of Toronto or by any of its divisions.
- (iv) has not been dealt with under provisions for the discipline of students with respect to University offices and services whose procedures apply to students in several academic divisions, such as University residences, libraries or athletic and recreational facilities.

### 1. Offences against persons

- (a) No person shall assault another person sexually or threaten any other person with sexual assault.
- (b) No person shall otherwise assault another person, threaten any other person with bodily harm, or knowingly cause any other person to fear bodily harm.
- (c) No person shall knowingly create a condition that unnecessarily endangers the health or safety of other persons.
- (d) No person shall threaten any other person with damage to such person's property, or knowingly cause any other person to fear damage to her or his property.
- (e) No person shall engage in a course of vexatious conduct that is directed at one or more specific individuals, and that is based on the race, ancestry, place of origin, colour, ethnic origin, citizenship, sex, sexual orientation, creed, age, marital status, family status, handicap, receipt of public assistance or record of offences of that individual or those individuals, and that is known to be unwelcome, and that exceeds the bounds of freedom of expression or academic freedom as these are understood in University policies and accepted

practices, including but not restricted to, those explicitly adopted.

#### Note:

Terms in this section are to be understood as they are defined or used in the *Ontario Human Rights Code*. Vexatious conduct that is based on sex or sexual orientation is considered an offence under the University's *Policy and Procedures: Sexual Harassment*. If the Sexual Harassment Officer believes, after consultation with relevant parties, that a complaint based on sex or sexual orientation would be better handled under the *Code of Student Conduct*, the Officer may refer the matter to the appropriate head of division.

- (f) (i) No person shall, by engaging in the conduct described in subsection (ii) below, whether on the premises of the University or away from the premises of the University, cause another person or persons to fear for their safety or the safety of another person known to them while on the premises of the University of Toronto or in the course of activities sponsored by the University of Toronto or by any of its divisions, or cause another person or persons to be impeded in exercising the freedom to participate reasonably in the programs of the University and in activities in or on the University's premises, knowing that their conduct will cause such fear, or recklessly as to whether their conduct causes such fear.
- (ii) The conduct mentioned in subsection (i) consists of:
- (a) repeatedly following from place to place the other person or anyone known to them;
  - (b) repeatedly and persistently communicating with, either directly or indirectly, the other person or anyone known to them;
  - (c) besetting or repeatedly watching the dwelling-house or place where the other person, or anyone known to

them, resides, works, carries on business or happens to be; or

- (d) engaging in threatening conduct directed at the other person or any member of the family, friends or colleagues of the other person.

## 2. Disruption

No person shall cause by action, threat or otherwise, a disturbance that the member knows obstructs any activity organized by the University of Toronto or by any of its divisions, or the right of another member or members to carry on their legitimate activities, to speak or to associate with others.

*For example, peaceful picketing or other activity outside a class or meeting that does not substantially interfere with the communication inside, or impede access to the meeting, is an acceptable expression of dissent. Silent or symbolic protest is not to be considered disruption under this Code. Noise that obstructs the conduct of a meeting or forcible blocking of access to an activity constitutes disruption.*

## 3. Offences Involving Property

- (a) No person shall knowingly take, destroy or damage premises of the University of Toronto.
- (b) No person shall knowingly take, destroy or damage any physical property that is not her or his own.
- (c) No person shall knowingly destroy or damage information or intellectual property belonging to the University of Toronto or to any of its members.
- (d) No person, in any manner whatsoever, shall knowingly deface the inside or outside of any building of the University of Toronto.
- (e) No person, knowing the effects or property to have been appropriated without authorization, shall possess effects or property of the University of Toronto.
- (f) No person, knowing the effects or property to have been appropriated without authorization, shall possess any property that is not her or his own.

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- (g) No person shall knowingly create a condition that unnecessarily endangers or threatens destruction of the property of the University of Toronto or of any of its members.
- 4. Unauthorized Entry or Presence**  
No person shall, contrary to the expressed instruction of a person or persons authorized to give such instruction, or with intent to damage or destroy the premises of the University of Toronto or damage, destroy or steal any property on the premises of the University of Toronto that is not her or his own, or without just cause knowingly enter or remain in or on any such premises.
- 5. Unauthorized Use of University Facilities, Equipment or Services**
- (a) No person shall knowingly use any facility, equipment or service of the University of Toronto contrary to the expressed instruction of a person or persons authorized to give such instruction, or without just cause.
  - (b) No person shall knowingly gain access to or use any University computing or internal or external communications facility to which legitimate authorization has not been granted. No person shall use any such facility for any commercial, disruptive or unauthorized purpose.  
*Appropriate uses for University connections to external networks are described, for example, in the policy document "Appropriate Use Policy for the "Net Network."*
  - (c) No person shall knowingly mutilate, misplace, misfile, or render inoperable any stored information such as books, film, data files or programs from a library, computer or other information storage, processing or retrieval system.
- 6. False Charges**  
No person shall knowingly or maliciously bring a false charge against any member of the University of Toronto under this *Code*.
- 7. Aiding in the Commission of an Offence**  
No person shall counsel, procure, conspire with or aid a person in the commission of an offence defined in this *Code*.
- 8. Refusal to Comply with Sanctions**  
No person found guilty of an offence under this *Code* shall refuse to comply with a sanction or sanctions imposed under the procedures of this *Code*.
- 9. Unauthorized Possession or Use of Firearms or Ammunition**  
No person other than a peace officer or a member of the Canadian Forces acting in the course of duty shall possess or use any firearm or ammunition on the premises of the University of Toronto without the permission of the officer of the University having authority to grant such permission.

*Note:*

The President of the University or another senior officer designated by the President has been given the authority to grant such permission for the premises of the University of Toronto under the authority of the Governing Council of the University. The President has designated the Vice-President, Business Affairs, who is the Chief Administrative Officer of the University to exercise this authority. Various officers of institutions federated with the University of Toronto have authority to grant such permission with respect to the premises of the federated institutions.

## C. PROCEDURES

- 1. General**
- (a) the University shall establish a centrally appointed pool of trained Investigating and Hearing Officers, who shall be available to the divisions, at the discretion of the head of the division, if that is considered appropriate or preferable for any reason.
  - (b) Each division shall appoint an Investigating Officer and a Hearing Officer, who may be student, staff

or faculty members from that division.

- (c) Whether the incident is investigated locally or centrally, every effort shall be made to conclude the case through to delivery of a final decision within the University within one year from the alleged incident of misconduct.
- (d) Pursuant to the provisions of Section D., interim conditions may be imposed by the head of the division.
- (e) For the purposes of confidential and central record keeping, a one-page summary of the outcome of all investigations, whether or not they have proceeded to a Hearing, shall be copied to the Judicial Affairs Officer in the Office of the Governing Council.
- (f) Whenever possible and appropriate, reason and mediation shall be used to resolve issues of individual behaviour before resort is made to formal disciplinary procedures.

## 2. Specific

- (a) An Investigating Officer shall be appointed for a term of up to three years by the principal, dean or director (hereinafter called "head") of each faculty, college or school in which students are registered (hereinafter called "division"), after consultation with the elected student leader or leaders of the division, to investigate complaints made against student members of that division. Investigating Officers shall hold office until their successors are appointed.
- (b) A Hearing Officer shall be appointed for a term of up to three years by the council of each division to decide on complaints under this *Code* made against student members of that division. Hearing Officers shall hold office until their successors are appointed.
- (c) If the Investigating Officer is unable to conduct an investigation, or the Hearing Officer is unable to conduct a hearing, or where the head of the

division believes on reasonable grounds that the appointed officer is inappropriate to conduct the particular investigation or chair a particular hearing, then the head of the division shall seek an appointment from the central pool for that particular case. If the head of the division intends to request either suspension from registration or expulsion from the University as a sanction in a particular case, or if the case appears to the head of the division to require a Hearing Officer with legal qualifications, then the Senior Chair of the University Tribunal may, on the application of the head of the division, appoint a legally qualified person as Hearing Officer for the particular case.

- (d) Where the head of the division has reason to believe that a non-academic offence as defined in this *Code* may have been committed by a student member or members of the division, the Investigating Officer will conduct an investigation into the case. After having completed the investigation, the Investigating Officer shall report on the investigation to the head of the division. If the head of the division concludes, on the basis of this report, that the student or students may have committed an offence under the *Code of Student Conduct*, the head of the division shall have the discretion to request that a hearing take place to determine whether the student or students have committed the offence alleged.
- (e) The hearing will be chaired by a Hearing Officer. The case will be presented by the Investigating Officer, who may be assisted and represented by legal counsel. If the right to a hearing is waived, or after a hearing, the Hearing Officer will rule on whether the student or students have committed the offence alleged and may impose one or more sanctions as listed below. The accused student or students may be

- assisted and represented by another person, who may be legal counsel.
- (f) Appeals against decisions of bodies acting under authority from the council of a division to hear cases arising out of residence codes of behaviour may be made to the Hearing Officer of the division, where provision therefor has been made by the council of the division.
- (g) Appeals against the decision of the Hearing Officer may be made to the Discipline Appeals Board of the Governing Council.
- (h) Where the head of a division has reason to believe that a non-academic offence may have been committed by a group of students including students from that division and from another division or divisions, the head may consult with the head of the other division or divisions involved and may then agree that some or all of the cases will be investigated jointly by the Investigating Officers of the divisions of the students involved and that some or all of the cases will be heard together by the Hearing Officer of one of the divisions agreed upon by the heads and presented by one of the Investigating Officers agreed upon by the heads.

## D. INTERIM CONDITIONS AND MEASURES

### 1. Interim Conditions: Ongoing Personal Safety

In those cases where the allegations of behaviour are serious and, if proven, could constitute a significant personal safety threat to other students or members of the University community, the head of the division is authorized to impose interim conditions that balance the need of complainants for safety with the requirement of fairness to the respondent student. The interim conditions are in no way to be construed as indicative of guilt, and shall remain in place until the charges are disposed of under the *Code's* procedures.

### 2. Interim Measures: Urgent Situations

In some circumstances, such as those involving serious threats or violent behaviour, it may be necessary to remove a student from the University. Where the head of the division has requested an investigation by the Investigating Officer and the investigation is pending, the Vice-President & Provost (or delegate) may, on the advise of the head of the division, suspend a student or students temporarily for up to three working days, if, in the opinion of the Vice-President & Provost (or delegate), there is reasonable apprehension that the safety of others is endangered, damage to University property is likely to occur, or the continued presence of the student(s) would be disruptive to the legitimate operations of the University. The student(s) shall be informed immediately in writing of the reasons for the suspension and shall be afforded the opportunity to respond. Any such temporary suspension must be reviewed by the Vice-President & Provost (or delegate) within the three-day temporary suspension period, following a preliminary investigation, and either revoked or continued. If the suspension is continued, the student(s) may appeal to the Senior Chair (or delegate), or the Associate Chair (or delegate) of the University Tribunal, who shall hear and decide on the appeal within five days.

## E. SANCTIONS

The following sanctions or combinations of them may be imposed upon students found guilty of committing an offence under this *Code*.

In addition, students found to have committed an offence may be placed on conduct probation for a period not to exceed one year, with the provision that one or more of the following sanctions will be applied if the conduct probation is violated.

1. Formal written reprimand.
2. Order for restitution, rectification or the payment of damages.
3. A fine or bond for good behaviour not to exceed \$500.
4. Requirement of public service work not to exceed 25 hours.
5. Denial of access to specified services, activities or facilities of the University for a period of up to one year.

The following two sanctions, which would directly affect a student's registration in a program, may be imposed only where it has been determined that the offence committed is of such a serious nature that the student's continued registration threatens the academic function of the University of Toronto or any of its divisions or the ability of other students to continue their programs of study. Where the sanction of suspension and/or expulsion has been imposed on a student, the Vice-President & Provost (or delegate) shall have the power to record that sanction on the student's academic record and transcript for such length of time as he or she considers appropriate.

A sanction of suspension shall be recorded on the student's academic record and transcript for a period of five years. The following wording shall be used: "Suspended from the University of Toronto for reasons of non-academic misconduct for a period of [length of suspension], [date]."

A sanction of expulsion shall be permanently recorded on a student's academic record and transcript. The following wording shall be used: "Expelled from the University of Toronto for reasons of non-academic misconduct, [date]."

6. Suspension from registration in any course or program of a division or any divisions for a period of up to one year.
7. Recommendation for expulsion from the University.

## University Grading Practices Policy

The purpose of the University Grading Practices Policy is to ensure that:

- (a) grading practices throughout the University reflect appropriate academic standards;
- (b) the evaluation of student performance is made in a fair and objective manner against these academic standards;
- (c) the academic standing of every student can be accurately assessed even when courses have been taken in different divisions of the University and evaluated according to different grade scales.

### Application of Policy

The Policy applies to all individuals and committees taking part in the evaluation of student performance in degree, diploma, and certificate credit courses (hereafter referred to as courses).

### Amendment to Policy

Amendments to the Policy shall be recommended to the Academic Board. Changes to the divisional regulations on grading practices shall be forwarded to the Committee on Academic Policy and Programs.

### Distribution of Policy

A copy of the Grading Practices Policy as well as the description of the grade scale used in a division and the substance of divisional regulations indicated in Part II of this Policy shall be published in the Calendar of the division. Similarly a copy shall be given to all students upon initial registration and to all instructors and others, including teaching assistants, involved in the evaluation of student performance.

The Policy is in three parts: Part I deals with grades, Part II outlines grading procedures to be adhered to in divisional regulations adopted as part of this Policy, and Part III is an administrative appendix available upon request from the Office of the Provost.

# Grading Practices Policy

## PART I: GRADES

### Meaning of Grades

Grades are a measure of the performance of a student in individual courses. Each student shall be judged on the basis of how well he or she has command of the course materials.

- I.1 A grade assigned in a course is not an assessment of standing within a program of studies. To determine the requirements for credit and standing in a program of studies, the academic regulations of the division in which the program is offered should be consulted.
- I.2 Grades for each course shall be assigned with references to the following meanings (which may be expanded in the divisional regulations under Part II):
- Excellent
  - Good
  - Adequate
  - Marginal
  - Inadequate.

### Grade Scales

- I.3 Once a judgment on the performance of the student has been made, the following grade scales are to be used:
- (a) the refined letter grade scale: A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F;
  - (b) the numerical scale of marks, consisting of all integers from 0 – 100; and/or
  - (c) the scales Honours/Pass/Fail and Credit/No Credit.

### Grades vs. Scores

- I.4 Grades should always be based on the approved grade scales. However, students may find that on any one evaluation they may receive a numerical or letter mark that reflects the score achieved on the test or essay. The cumulative scores may not be directly identified with the final grade. Grades are final only after review by the divisional review committee described below.
- I.5 A table of correspondence and a translation table are defined in the Appendix, (See Grading Scheme, Section 6 of this Calendar) for each of the letter grade scales referred to in I.3(a) in order to allow the conversion, when necessary,

of a grade assigned from one scale to the corresponding grade in another. It should be noted that these tables are not to be used to translate a score to a grade directly.

### Grade Reporting

- I.6 Only one *letter* scale, as referred to in I.3(a) may be used in a division for assigning grades, but the numerical scale and the H/P/FL and CR/NCR scales, as referred to in I.3(b) and (c) respectively, may also be used. The grades assigned in a course, however, must all be from the same scale.
- I.7 Grades in each course shall be assigned according to the practice of the division offering the course.
- Grades in each course shall be reported according to the practice of the division administering the program in which the student is registered (the reporting division).
- (a) Grades shall be reported as assigned when the division offering the course is also the reporting division, when the offering and reporting divisions use the same grade scale, and when the grades are assigned from the H/P/FL or CR/NCR scales.
  - (b) In all other cases, grades shall be reported as converted to the scale used by the reporting division, and the conversion shall be made according to the tables of correspondence and translation tables defined in the Appendix. (See Grading Scheme, Section 6 of this Calendar.)
  - (c) With the exception of H/P/FL and CR/NCR scales, two different letter grade scales may not be used on the same transcript.
  - (d) A grade not reported in the form originally assigned by the offering division must on request be made available to the student in that form by the reporting division.
- I.8 All non-grade symbols used in reporting course results must correspond to the University-wide standard. A list of the currently approved symbols and their meanings is given in the Appendix A.2.

(See Grading Scheme, Section 6 of this Calendar.)

- I.9 The information in grade reports and transcripts must be communicated to the user, whether within or outside the University, in a clear and meaningful way. To that end, transcripts issued by every division of the University must indicate the relationship between the divisional grade scale, the grade meanings, the basic letter grade scale, whether refined or unrefined by plus and minus signs, and the scale or numerical marks as well as the translation table. A list of non-grade symbols and meanings shall also be included in the transcript.

## PART II: GRADING PROCEDURES

### Approval of Grades

Grades shall be recommended by the instructor to the chair or division head. The grades shall then be reviewed and approved following the divisional review procedure. Grades shall not be reported or released to students as official until the divisional review procedure has been carried out. The divisional review constitutes final approval of grades except when grades are changed on appeal.

### II.1 Divisional Review Committee

In each division, a committee chaired by the divisional head or a designate, and where appropriate, an additional committee structure, with the chairs (or their designates) of departments or other academic units of divisions serving as chairs, shall:

- (a) administer the implementation of the University Grading Practices Policy at the divisional level and oversee the general consistency of grading procedures with the division;
- (b) formulate, approve, and administer the University's specific regulations concerning the grade scale or scales to be used, the assignment of non-grade symbols for course work, classroom procedures and approved methods of evaluation;
- (c) review, adjust and approve course grades recommended by instructors. The grades recommended for any individual student in the professional

faculties may be adjusted according to his or her performance in the course or program as determined by the committee. *The divisional committee has the final responsibility for assigning the official course grade.*

### II.2 Classroom Procedures

To ensure that the method of evaluation in every course reflects appropriate academic standards and fairness to students, divisional regulations governing classroom procedures must be consistent with the practices below.

- (a) As early as possible in each course (and no later than the division's last date for course enrolment) the instructor shall make available to the class, and shall file with the division or department, the methods by which student performance shall be evaluated. This should include whether the methods of evaluation shall be essays, tests, examinations, etc., the relative weight of these methods in relation to the overall score, and the timing of each major evaluation.
- (b) After the methods of evaluation have been made known, the instructor may not change them or their relative weight without the consent of at least a simple majority of the students enrolled in the course. Any changes shall be reported to the division or the department.
- (c) Student performance in a course shall be assessed on more than one occasion. No one essay, test, examination, etc. should have a value of more than 80% of the grade. Criteria for exemption may be determined by the division.
- (d) In courses that meet regularly as a class there shall be an examination (or examinations) conducted formally under divisional auspices and worth (alone or in the aggregate) at least one-third of the final grade. Criteria for exemption may be determined by the division. The relative value of each part of an examination shall be indicated to the student. In the case of a written examination, the value shall

# **Grading Practices Policy**

- be indicated on the examination paper.
- (e) Commentary on assessed term work and time for discussion of it shall be made available to students.
  - (f) At least one piece of term work which is a part of the evaluation of a student performance, whether essay, lab report, review, etc., shall be returned to the student prior to the last date for withdrawal from the course without academic penalty.
  - (g) Grades shall be recommended by the instructor in reference to the approved grade scales on the basis of each student's overall performance.

In formulating their own regulations divisions may add to items (a) to (g) and may adopt fuller or more specific provisions, for example in place of such terms as "a simple majority" (b), "one-third of the final grade" (d), or in particularizing the evaluation methods referred to in (a) and (b).

## **II.3 Procedures in the Event of Disruptions**

### **Principles**

The following principles shall apply in the event of disruption of the academic program:

- (i) The academic integrity of academic programs must be honoured; and
- (ii) Students must be treated in a fair manner recognizing their freedom of choice to attend class or not without penalty.

### **Procedures**

- (a) The Vice-President and Provost, or the Academic Board, shall declare when a disruption of the academic program has occurred. The Provost shall take steps to inform the University community at large of the changes to be implemented, and will report to the Committee on Academic Policy and Programs regarding the implementation of the procedures and changes to the status of the academic programs.
- (b) Individual instructors or multi-section coordinators responsible for courses that are disrupted shall determine, as the disruption proceeds, whether any

- changes to classroom procedures are needed to complete the course.
- (c) Changes to the classroom procedures should, where possible, first be discussed with students prior to the class in which a vote of the students present on the proposed changes is to be taken. Changes agreed upon by consensus should be forwarded to the department or division with a report on the attendance at the class where the vote was taken.
- (d) Where consensus on changes has not been arrived at, or where a vote is not feasible, the instructor, after the class discussion, will provide the division head or chair of the department in multi-departmental faculties, with his or her recommendation, along with the results of any classroom votes. The chair or division head shall then make a decision.
- (e) Where classes are not able to convene, the instructor, with the prior approval of the chair in multi-departmental faculties or the division head, shall make changes deemed necessary to the classroom procedures. In the absence of the instructor such changes will be made by the divisional head and require the approval of the Provost. Where courses are to be cancelled, approval of the divisional council is required. If the divisional council cannot meet, approval of the division head, or in the absence of the division head, the approval of the Provost, is required.
- (f) Students must be informed of changes to classroom procedures. This may be done by circulating the changes in writing to the class, posting in the departmental and faculty offices, reporting to the divisional council, as well as listing in the campus press. Should classes resume students must be informed, at class, of any changes made during the disruption.
- (g) Where changes to the classroom procedures are made, students who do not wish to complete the course under the revised procedures may withdraw without academic penalty. This must

- be done prior to the last day of classes.
- (h) Where students have not attended classes that are meeting, they nonetheless remain responsible for the course work and meeting course requirements. However, where possible, reasonable extension of deadlines for the course requirements, or provision of make-up tests shall be made and reasonable alternative access to material covered should be provided.
- (i) A student who feels, owing to his or her special circumstances, that changes to the classroom procedure have unreasonably affected his or her grade may appeal the grade following the procedures as set out in each division.

## II.4 Assessment in Clinical and Field

### Settings

Divisions may make reasonable exemptions to the classroom procedures described above in circumstances such as field or clinical courses where adherence to these procedures is not possible. Nevertheless, it is obligatory that the assessment of the performance of students in clinical or field settings should be fair, humane, valid, reliable and in accordance with the principles enunciated in the University Grading Practices Policy. Accordingly, where a student's performance in a clinical or field setting is to be assessed for credit, the evaluation must encompass as a minimum:

- (a) a formal statement describing the evaluation process, including the criteria to be used in assessing the performance of students and the appeal mechanisms available. This statement should be available to all students before or at the beginning of the clinical or field experience;
- (b) a mid-way performance evaluation with feedback to the student;
- (c) written documentation of the final assessment.

In addition, for such clinical and field experiences, divisions must ensure that:

(d) clinical and field assessors are fully informed regarding University,

divisional and course policies concerning evaluation procedures, including the specific assessment procedures to be applied in any particular field or clinical setting.

Any exception from the above would require a divisional request with explanation for approval by the Governing Council.

## II.5 Grade Review and Approval Process

The following principles and procedures shall govern the grade review and approval process.

- (a) The distribution of grades in any course shall not be predetermined by any system of quotas that specifies the number or percentage of grades allowable at any grade level.
- (b) However, a division may provide broad limits to instructors setting out a reasonable distribution of grades in the division or department. Such broad limits shall recognize that considerable variance in class grades is not unusual. The division may request an explanation of any grades for a course that exceed the limits and hence appear not to be based on the approved grade scales or otherwise appear anomalous in reference to the Policy. It is understood that this section shall only be used when the class size is thirty students or greater. Each division shall make known in the divisional Calendar the existence of any such limits be included.

### NOTE:

The Faculty has no intention of requiring course results to conform to a prescribed pattern. Courses with under 30 students, and 400 level courses, are subject to no scrutiny by the Faculty. In the case of larger courses, experience has shown that the results in an average class of reasonable size will normally fall somewhere within the following broad guidelines:

1. Grade "A" between 5% and 25%.
2. Grades "A" and "B" combined: not over 75%.
3. Grade "F": not over 20%.

# **Grading Practices Policy**

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- (c) The criterion that the Divisional Review Committee shall employ in its evaluation is whether the instructor has followed the University Grading Practices Policy. The Review Committee shall not normally adjust grades unless the consequences of allowing the grades to stand would be injurious to the standards of the University, or the class in general.
- (d) Membership on the Divisional Review Committee may include students but should not include members of the divisional appeals committee(s).
- (e) Where grades have been adjusted by a divisional committee, the students as well as the instructor shall be informed. On request, the students or the instructor shall be given the reason for the adjustment of grades, a description of the methodology used to adjust the grades, and a description of the divisional appeal process.
- (f) Where a departmental review committee changes course grades, the faculty office shall be so informed. Having done so, the faculty office shall relay this information, upon request, to the students or the instructor with a description as to the reason for the change and the methodology used.
- (g) Past statistical data, including drop-out rates, mean arithmetic average, etc. should be provided to the Divisional Review Committee as background information where available. The committee will not use this information exclusively to judge whether a specific grades distribution is anomalous. Rather, the information should provide part of the basis for an overall review of grades in a division.
- (h) Where class grades have been changed, or when the Divisional Review Committee had reservations about the grades, the issue will be taken up with the instructor by the division or department head, with a view to ensuring that the Grading practices Policy is followed in future.

## **Appeal Procedure**

Every division shall establish divisional appeal procedures. Students may appeal grades according to the procedures established for that purpose in the division. The appeal may be made whether marks have been altered by the review process or not. These procedures shall be outlined in the divisional Calendar, and available upon request at the faculty or registrar's office.

## **II.6 Student Access to Examination Papers**

- (a) All divisions should provide access to copies of the previous year's final examination papers and other years' papers where feasible. Exemptions may be granted by an appropriate committee of the division or department.
- (b) All divisions should provide students with the opportunity within a reasonable time to review their examination paper where feasible. A recovery fee should be set to cover administrative costs including photocopying.
- (c) All divisions should provide, in addition to the customary re-reading of papers and the re-checking of marks, the opportunity for students to petition for the re-reading of their examination where feasible. A cost recovery fee should be set and returned where appropriate.

## **II.7 Conflict of Interest**

Where the instructor or a student has a conflict of interest, or is in a situation where a fair and objective assessment may not be possible, this should be disclosed to the chair or division head who shall take steps to ensure fairness and objectivity.

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## Publications

### The Calendar

The UTM Calendar serves as an academic information guide and statement of the most important rules and regulations for students seeking to obtain the degrees of Bachelor of Arts, Bachelor of Science or Bachelor of Commerce from the University of Toronto through UTM.

Each department offering courses at UTM has included a list of its academic staff, an introductory essay, and details of the programs that it sponsors. When selecting courses, the student should read these essays, as well as the description of courses offered, and seek advice from Registrarial Services and from Departmental academic advisors. Particular attention should be paid to exclusions, prerequisites and corequisites. Students who wish to have such requirements waived, or who have equivalent qualifications, must consult the department offering the course.

All students should refer to the list of Sessional Dates so as to avoid incurring academic or financial penalties and are urged to read the sections entitled Academic Status and Degree Requirements as these state concisely what is required in order to qualify for the degree.

### UTM Registration Guide

A supplement to this Calendar is issued in April. It contains specific instructions for registration and enrolment for the Fall+Winter Sessions. The information it contains is just as important as that in this Calendar. The information contained in this booklet is available on the web at:  
[www.utm.utoronto.ca](http://www.utm.utoronto.ca)

### Student Account Information

This information on academic and incidental fees, payment procedures and refunds, is available on the Student Accounts web site, [www.fees.utoronto.ca](http://www.fees.utoronto.ca). Students who want a paper copy sent to them can contact Student Accounts and the information will be mailed to them.

### Summer Session Information

The list of course offerings for Summer Session is available in February. Check the UTM web site.

### Home Page on the World Wide Web

This electronic publication of UTM provides frequently updated information about the University of Toronto at Mississauga, its academic program, the Library, campus events, research and expertise, alumni information, student organizations and other such information. Visit the site regularly at: [www.utm.utoronto.ca](http://www.utm.utoronto.ca)

## **11. UNIVERSITY AND COLLEGE OFFICERS**

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In the winter of 2002-2003, the University of Toronto at Mississauga changed from being a constituent college within the University's Faculty of Arts and Science to being a separate and distinct division in the University (independent of the Faculty of Arts and Science). Faculty policies and procedures were under review at the time of publication. Updates, revisions, and/or changes will be posted on-line at [www.utm.utoronto.ca/ca/calupdates](http://www.utm.utoronto.ca/ca/calupdates). Printed copies will be available from UTM Registrarial Services.

## **NOTES**

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Cover: Summertime at UTM Campus  
Lily pond near Principal's Road